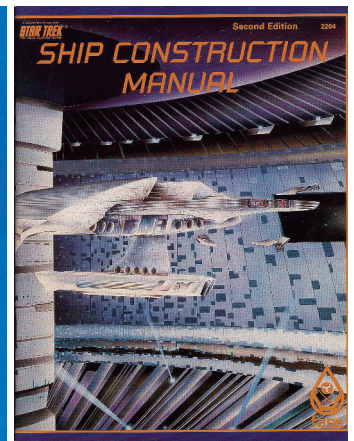
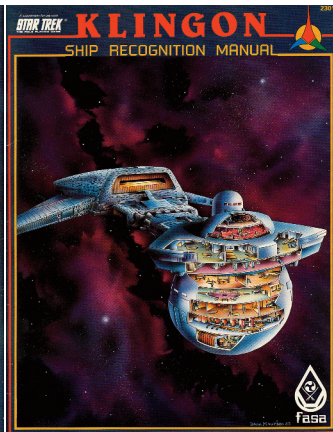
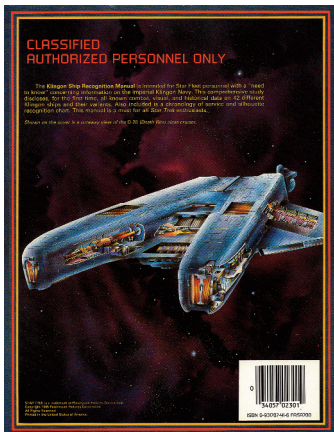
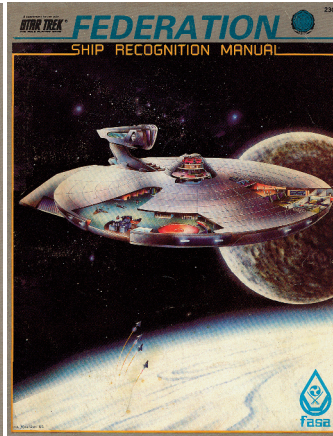
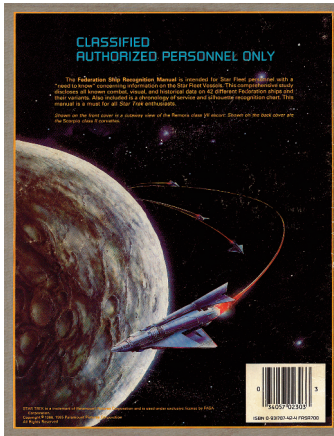


MEMORY BANK EPSILON

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CREDITS

Design

Forest G. Brown

Writing

Forest G. Brown

Editorial Staff

Editing And Additional Writing

Wm. John Wheeler

Proofreading

Donna Ippolito

Illustration And Cover Art

Dana Knutson

Production Staff

Layout And Pasteup

Dana Knutson

Todd F. Marsh

Jane Bigos

David J. Hutchins

Typesetting

Karen Vander Mey

Design

Forest G. Brown

Writing

Forest G. Brown

Wm. John Wheeler

Editorial Staff

Editing

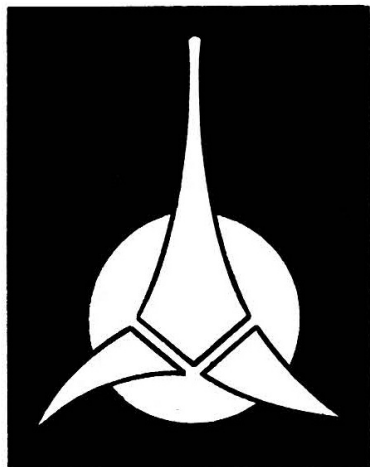
Wm. John Wheeler

Proofreading

Donna Ippolito



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SHIP CONSTRUCTION MANUAL

First Edition Design

David F. Tepool of *Fantasimulations Associates*

Second Edition Design And Development

Forest G. Brown

Wm. John Wheeler

David F. Tepool

Ship Construction Table Expansion

Forest G. Brown

Combat Efficiency System

Wm. John Wheeler

Forest G. Brown

Cost, Availability, And Black Market

Greg K. Poehlein

Second Edition Writing

Wm. John Wheeler

David F. Tepool

Forest G. Brown

Illustration And Cover Art

Dana Knutson

Production Staff

Graphic Design

Jordan Weisman

Layout And Pasteup

Todd F. Marsh

Dana Knutson

Jane Bigos

Typesetting

Karen Vander Mey

CREDITS

Design

Forest G. Brown

Writing

Forest G. Brown

Historical Consultant

Commander Hikaru Sulu

Editorial Staff

Editor-In-Chief

L. Ross Babcock III

Editing And Additional Writing

Wm. John Wheeler

Proofreading

Donna Ippolito

Editorial Staff

Editor-In-Chief

L. Ross Babcock III

Editing

Wm. John Wheeler

Proofreading

Forest G. Brown

Donna Ippolito

Production Staff

Graphics Design

Dana Knutson

Illustration

Dana Knutson

Todd Marsh

Mitch O'Connell

Layout And Paste-Up

Dana Knutson

Todd Marsh

Jane Bigos

Typesetting

Karen Vander Mey

Harassment

Jordan K. Weisman

L. Ross Babcock III



Illustration

Dana Knutson

Robert Oswald

Cover Art

Dana Knutson

Production Staff

Layout And Pasteup

Dana Knutson

Todd F. Marsh

Jane Bigos

Typesetting

Karen Vander Mey

DEDICATION

Much of the Information provided in this manual was acquired by the ships of Operation Dixie. This ill-fated intelligence mission successfully penetrated Klingon space and reported its findings to Star Fleet until it was discovered and presumed destroyed.

This manual is dedicated to the memory of the officers and crew of Operation Dixie. The loss of these gallant and selfless men is a heavy one, not only to Star Fleet but to the entire populace of the United Federation of Planets. It is because of men like these that we remain free from the yoke of slavery.



CHANGES TO THIS MANUAL

Users of this manual are required to submit changes in the information in this publication pursuant to SFOPS. MAN. 307/A45T. Such changes or other comments regarding this publication must be keyed to the specific page, paragraph, and line of text in which the change is recommended. Reasons should be provided for each comment to insure understanding and complete evaluation.

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Military History Division
Austin, Tx, Terra 01.3

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Classified Documents Directive 998.21C

INTELLIGENCE DATA RELIABILITY RATINGS

Class A

Hard data gathered from physical examination.

Class B

Intelligence projection based on repeated scans/encounters over protracted periods. Class A plans available.

Class C

Intelligence projection based on repeated scans/encounters. Class B plans available.

Class D

Intelligence projection based on five or fewer scans/encounters. Class C plans available.

Class E

Speculative projection based on hearsay/transmissions from official/semi-official sources.

Class F

Speculative projection based on hearsay/transmissions from unofficial sources.

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Romulan Sector Intelligence
Olympica, Mars 01.4

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Klingon Sector Intelligence
Williams Port, Titan 01.714

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Classified Documents Directive 998.21C

Introduction

THE ROLE OF STAR FLEET

Since its austere beginnings on Stardate 0/8910, Star Fleet has grown into the most powerful military, colonial, and exploratory force in known space. Its purpose is to defend the United Federation of Planets from its known enemies or any would-be invaders, to keep open all trade routes by enforcing the laws governing their use, and to explore, colonize, and develop frontier areas for the betterment of all. To this end, Star Fleet maintains a large and modern navy capable of meeting any challenge.

The following excerpt, from Adm. Josef Cookston's address to the Military Appropriations Committee, Stardate 2/2104, gives a portent of the future:

For more than 130 years, Star Fleet has been tested, re-tested, and never found wanting, but its supreme challenge lies ahead. With the quantitative military balance decidedly adverse and with the former qualitative edge increasingly in doubt, we can assume a favorable outcome in the event of war only by superior concepts, tactics, and leadership. We are desperately in need of a strategy not only for waging war, but for winning without war.

SCOPE OF THIS MANUAL

This manual describes the major ships of Star Fleet on a classified basis, providing an overview to authorized personnel and line officers. An effort has been made to provide a comprehensive and objective presentation despite the limitations of space. It is designed for general reading and quick reference.

A historical background of Star Fleet starships from the period of "The Great Awakening" to the present is provided. Discussions of all major ships include observations on their weaknesses and strengths, and complete combat data is provided for evaluation. The overall reliability of the data provided is subject to the level of classification authorized by Star Fleet Command. More detailed information on the performance characteristics of each vessel may be found in the operations manuals of those particular vessels.

Introduction

THE KLINGON IMPERIAL NAVY

From the Star Fleet Academy Commencement Address, Stardate 2/2306.07, by Admiral L.R. Leeper

The lengthening shadow cast by the Klingon military machine is not the most ominous threat facing the Federation today. The last twenty years have been witness to extraordinary increases in all aspects of the Klingon armed forces. As the build-up continues unabated, all evidence points to the Klingon intent to achieve dominance in every dimension of military power. The Klingons aspire to advance, step-by-step, toward galactic dominance employing every stratagem short of purposeless combat.

As a consequence, the principal role of the Klingon Imperial Navy is to support political and economic moves to disrupt the alliance of Federation worlds, sap the vitality of free trade, and insulate the Romulan Star Empire and UFP from each other. Prepared for the eventuality of armed conflict at any level and at any time, the Klingon Imperial Navy has studied the lessons of past wars with great care. Thus it constitutes a many-faceted threat.

SCOPE OF THIS MANUAL

This manual describes the major ships of the Klingon Imperial Navy on a classified basis, providing an overview to authorized Star Fleet Intelligence personnel and line officers concerned with the Klingon Imperial Navy. An effort has been made to provide a comprehensive and objective presentation despite the limitations of space. It is designed for general reading and quick reference.

A historical background of Klingon starships from Stardate 1/8001 to the present is provided. Discussions of all major ships include observations on their weaknesses and strengths, and complete combat data is provided for evaluation. The overall reliability of the data available for each vessel is noted, as well as the primary information source, the records of which may be consulted if a more detailed briefing is necessary.

Introduction

THE ROLE OF THE STAR NAVY

The Romulan Star Empire maintains an active navy about three-fourths the size of Star Fleet. This large and modern navy is considered to be of major importance in attaining *The Road To The Stars*, as the Romulans designate their national goals, and in maintaining the security of the Star Empire. The Star Navy has personnel numbering millions and supports extensive production facilities that have been responsible for outputting large quantities of modern, high-firepower weapons during the past few years.

The goals of the Star Empire are being achieved by direct use of military power and by more subtle means as well. In his address to the UFP Intelligence Community Symposium On Romulans, Stardate 2/1902, these latter were described by Adm. Talitha of Andor as follows:

The most prevalent Romulan threats have not been massive military invasions, but a more subtle mix of military, psychological, and political pressures. In light of recent events, it is likely that the Romulans are preparing to come out in the open.

In this context, and in consideration of superpower competition, it is to be assumed that Romulan national goals are hostile to those of the United Federation of Planets.

SCOPE OF THIS MANUAL

This manual describes the major ships of the Star Navy on which enough information exists to give an overview to authorized Star Fleet Intelligence personnel and line officers on a need-to-know basis. An effort has been made to provide a comprehensive and objective presentation, despite the limitations of space. It is designed for general reading and quick reference.

This manual furnishes an historical background of Romulan starships from Stardate 1/8001 to present day, along with discussions of each ship, including its weaknesses and strengths, its known sphere of operations, and such combat data as is available. The overall reliability of the data available for each vessel is noted, as well as the primary information source, the records of which may be consulted if a more detailed briefing is necessary.

AD INFINITUM

*"Ah, the last of the talk words is finally here!
This Book caught me by surprise..."*

Those words were written in Book 6 when it was thought that *that* was the last of the rule books. Silly me. Number 7 is the last core rule book and it is wholly optional, depending.

For completeness, this book contains the full Recognition Manuals and 2nd Edition Construction Manual. To keep things simple, page numbers herein remain the same as the original manuals per each section. Pdf sources are the ones commonly found around. No clean up to the scans has been done, so there may be some sub-par material. My apologies on that front.

Book 7 here allows those going into movie-era to do so without undue hassle. For those wanting to stay in the TOS era, Jack Photon's *E-Z Series* of two supplements will do the trick.

For simple ship construction and combat, use **S16: EZ Ship Construction** with the combat system as described in **Book2: Piece of the Action**. For TOS/TAS-era Ship Recognition, use **S15: E-Z Ship Recognition**.

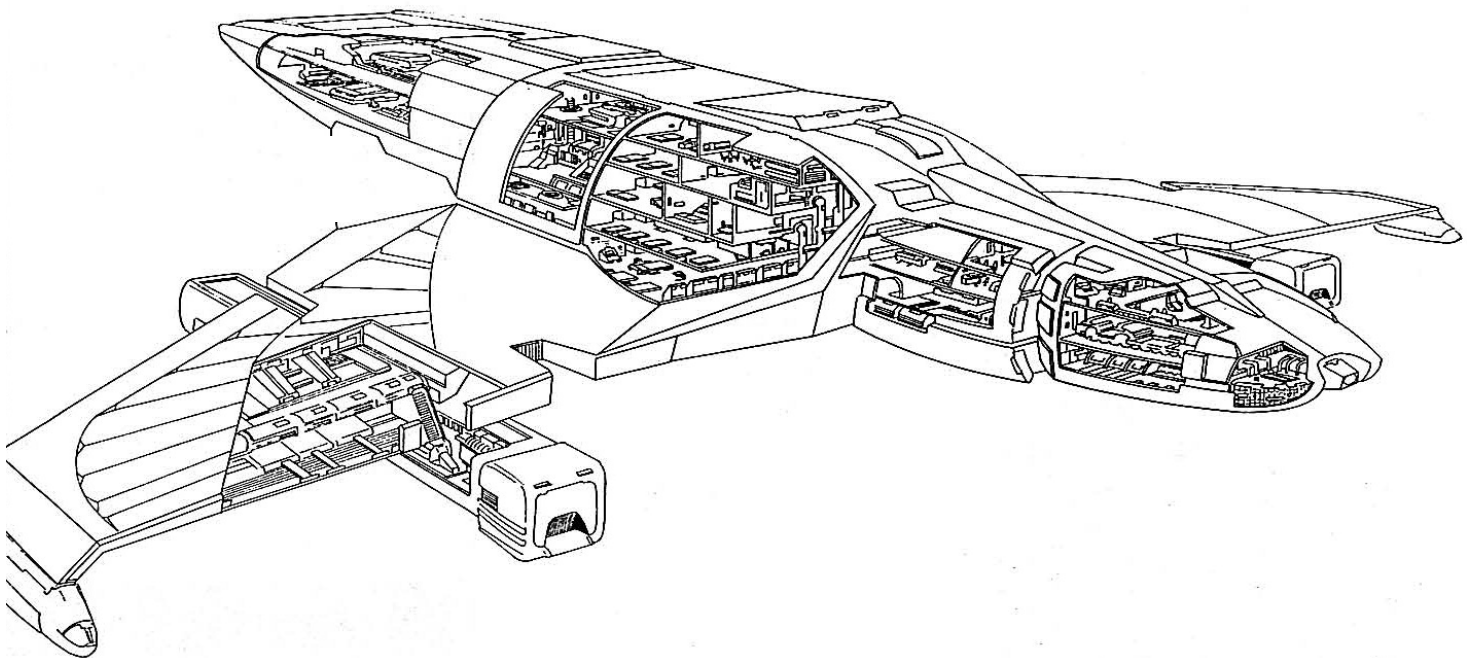
For tournament-grade ship combat, you want **Book 7: Memory Bank Epsilon** and **S14: STIII ST TAC CBT SIM**.

Whether E-Z or Advanced, all vessel service timelines, recognition silhouettes, combat maps, counters, deck plans and more, see **S11: Combat Grids, rev 4** or higher.

Some fonts native to the pdfs may be needed locally on your machine to read correctly. Fonts are otherwise embedded.

Are you one, Herbert?

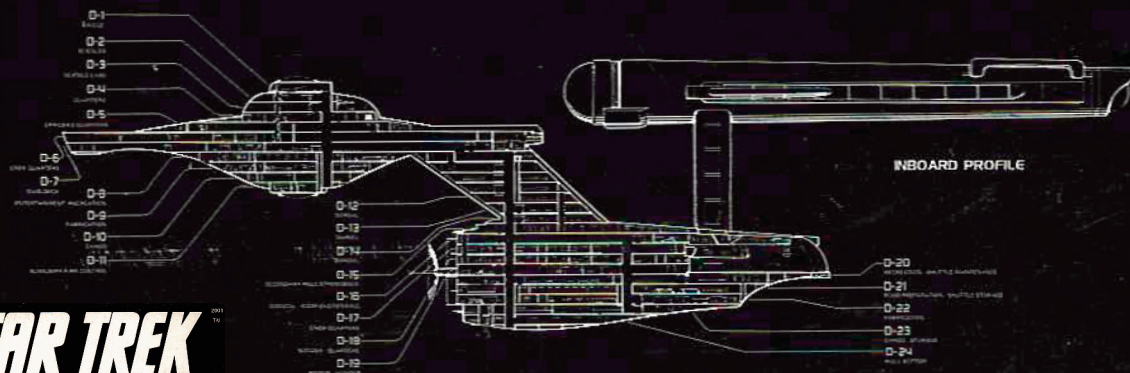
-Jack Photon, 2025



FIRST EDITION BOX SET

SHIP RECOGNITION HANDBOOK :

CONSTITUTION CLASS HEAVY CRUISER

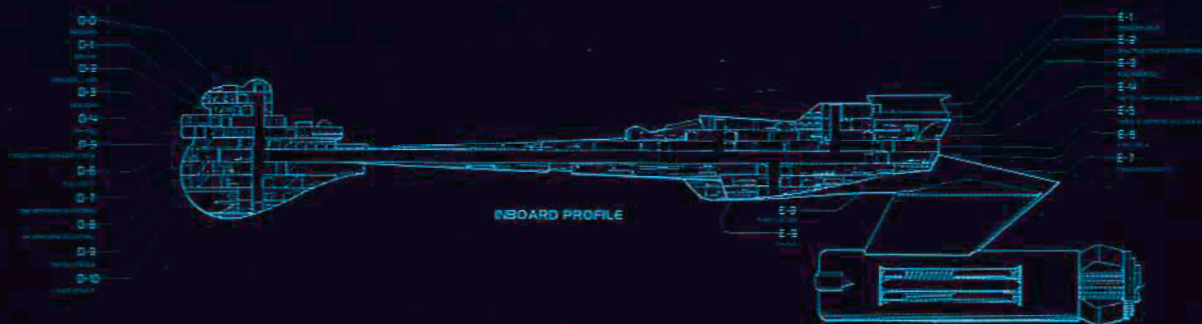


STAR TREK
THE ROLE PLAYING GAME



SHIP RECOGNITION HANDBOOK :

KLINGON EMPIRE D-7 CLASS BATTLECRUISER

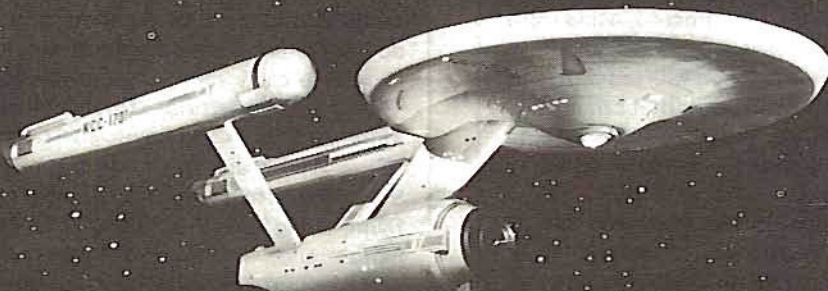


**FIND THE 15MM DECK PLANS IN
S11: COMBAT GRIDS, REV.4+**

UNITED FEDERATION OF PLANETS STAR FLEET ACADEMY

SHIP RECOGNITION HANDBOOK FRIENDLY POWERS UFP STAR FLEET CONSTITUTION CLASS HEAVY CRUISER

**FOR ADDITIONAL DETAILS ON SHIP'S INTERIORS AND SYSTEM DEFINITIONS,
SEE THE SHIP SYSTEMS SECTION OF BOOK 2: PIECE OF THE ACTION**



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For use with ship recognition deck plans—Constitution class heavy cruiser

DIMENSIONS

Overall length	289 m
Overall width	127 m
Overall height	73 m
Deck ceiling height	2.5 m

Weight (empty)	190000 metric tons
----------------	--------------------

MOBILITY DATA

Max safe cruising speed	WF 6
Emergency speed	WF 8

ARMAMENTS

Phasers	3 banks of 2
Mounted upper main hull (P/S)	
and lower main hull (fwd center)	
Photon torpedoes	2 tubes
Mounted upper main hull (top bubble fwd)	

OTHER FEATURES

Transporters	
6-person standard use	4
22-person emergency	5
Cargo	2
Shuttlecraft	6
(More than minimum number may be carried, at Captain's discretion.)	
Tractor Beams	
Lower secondary hull (fwd)	1
Main propulsion	
Warp nacelles	2 (P/S)
Impulse drive	1 (aft decks 6 & 7)

EMERGENCY SEPARATION

Under extreme circumstances, it is possible to separate the saucer-shaped main hull from the dorsal connector/engineering hull combination and operate both sections independently at sublight speeds. Such separation has never taken place during the active service of the Constitution class heavy cruisers, but it could be done in case of dire emergency.

To implement separation, the ship must first slow to sublight speed. If performed as part of an abandoned ship situation, the crippled portion of the ship is evacuated into the other section. The sections are then separated by activation of explosive bolts at the joint.

The saucer-shaped main hull is then controlled by the regular bridge while the secondary hull (with dorsal, and warp pods) can be controlled from the auxiliary bridge forward on deck 19.



After separation, the saucer can maneuver at up to .96 lightspeed on the main impulse engines located at the aft end of the saucer. This hull does not contain warp engine pods, and so does not have sufficient power to operate combat shielding. (Anti-collision shields are run off battery power.) Phaser weaponry is likewise powerless, but photon torpedo tubes can be armed once each without exhausting power reserves.

The separated secondary hull has full available warp pod power for shielding, but no weapons are mounted on the secondary hull. It is not capable of warp speed, since the structural integrity of the ship has been compromised somewhat by separation. The ship can proceed, using warp power, at up to .98 lightspeed, however.

The secondary hull is capable of full self-destruct, since it has the warp nacelles. The primary hull can initiate self-destruct powerful enough to atomize itself, but no damage from this type of explosion is likely to be taken by nearby shipping.

Once separated, the two sections cannot be re-joined, short of the use of major shipyard facilities or specially-equipped workcrews from such a facility.

CREW COMPLEMENT

COMMAND	43
ENSIGN GRADE	387
TOTAL	430

HULL NUMBERS AND NAMES

(Only 13 of these vessels have been built so far. More may be commissioned. 4 have been destroyed at the time of this writing. These are marked below as *. Construction of replacements for these vessels is underway, and they will most likely be commissioned with the same names as the originals.)

CONSTELLATION	NCC 1017 *
CONSTITUTION (Class)	NCC 1700
DEFIANT	NCC 1764 *
ENTERPRISE	NCC 1701
EXCALIBUR	NCC 1664 *
EXETER	NCC 1672
FARRAGUT	NCC 1647
HOOD	NCC 1703
INTREPID	NCC 1631 *
LEXINGTON	NCC 1709
POTEMKIN	NCC 1702
REPUBLIC	NCC 1373
YORKTOWN	NCC 1717

SHUTTLECRAFT

The shuttlecraft carried on board many Star Fleet vessels are very important in many landing party situations. Shuttles are used to transport landing parties when the transporter is unusable or impractical for some reason. Shuttles can serve as small courier vessels as well.

Every Starbase and most small Star Fleet outposts have shuttlecraft of standard design berthed at that base. Many larger craft in the fleet carry shuttles in "shuttle bays".

(Constitution class starships, for instance, carry an assigned minimum of six shuttles, though some may be in non-operational condition at times. Individual captains may choose to carry more shuttles if they desire, and many do. The U.S.S. Enterprise, for instance, usually has seven or more...)

There are also "floating" shuttlecraft operated by Star Fleet. These shuttles are used by any facility that has them, being taken over by the ship or facility at the destination end. The use of "floaters" is convenient when you need an extra shuttle, but inconvenient when a "floater" must be serviced, or when too many "floaters" accumulate at one facility. Generally speaking, "floating" shuttles are found in worse state of disrepair than assigned shuttles, requiring a % dice roll every time one is used for a major flight (interplanetary or harsh conditions landing). If the roll is 05 or less, the shuttle has a minor breakdown in flight and must be repaired. Repairs will take a number of hours equal to a 1D10 roll, and require a successful save on Shuttlecraft Systems Technology at the end of that time. (If the roll fails, it can be repeated every hour until it succeeds, or until it has failed five times — in which case the shuttle can not be repaired in flight and a distress signal must be sent and help awaited.)

The basic Star Fleet shuttlecraft is a well-engineered standard design. Parts and service are available at nearly every Federation outpost of any appreciable size, and on any star vessel carrying them. A few have even been sold for civilian use.

The standard shuttlecraft carries up to 7 people comfortably, but can be operated easily by one person with a minimum Shuttlecraft Pilot skill of 10. In a pinch, it can actually carry up to 12 persons on a short hop from orbit to planet's surface, but its life support systems will not support such a load for very long. For this reason, and because there are no chairs for more than the standard compliment of 7, it would never be used to carry more except in extreme emergency.

Shuttlecraft are not intended for faster-than-light travel, possessing only an advanced ion-propulsion drive similar in some respects to standard impulse drives. Maximum speed is .89 of lightspeed. Shuttles are not armed in Star Fleet, though it is possible that a civilian-owned surplus shuttle might have been rigged with a single small phaser.

Takeoff and landing is done vertically, on three sturdy landing pads. Shuttles are built to last, and some in service have been around over 20 years! During that time, there have been only a few cosmetic and electronic design changes and additions. Shuttles do not have deflector shields, other than for protection against small meteors and other space debris. Any single hit with ship's weaponry

will destroy one (though a LUC save on the pilot should be made if one is fired on, with success meaning a near miss on such a small target). For this reason, shuttles have no real effect on the ship combat game. (Despite rumors to the contrary, shuttles are not used in warfare — at least not by the Federation!)

In recent years, one special type of shuttlecraft is being tested for possible addition to Star Fleet standard equipment. The *aquashuttle*, developed for "landings" on water-covered worlds, bears little resemblance to the standard shuttle, though it has a number of similarities internally. (Many of the same parts can be used, in fact, so an aquashuttle can be serviced anywhere a standard shuttle can).

The aquashuttle carries a maximum normal load of six passengers, with an emergency load limit of 10 for short hops. It is capable of interstellar flight at a maximum speed of .82 lightspeed. It can also submerge in water (or any similar fluid) to a depth of 1200 meters and travel at 70 kilometers an hour. It has specially padded and belted seats to alleviate problems with rough seas.

Unlike the standard shuttle, the aquashuttle is equipped with a single forward-mounted phaser cannon, designed for use on dangerous undersea life. This weapon would be useless as a space combat weapon, except against a totally unarmed ship. Against planetside targets, treat it as much damage at each setting as a phaser rifle.

The aquashuttle has a dorsal observation bubble with two seats and panels controlling a number of underwater detection and research instruments. These instruments work much like underwater tricorders, and can be treated as such, combining science and medical functions, but with double the effective range. Someone must be seated in the bubble for these instruments to be operated.

Aquashuttles are not yet standard equipment on Star Fleet vessels. They are being tested on a number of Constitution class vessels (including the U.S.S. Enterprise), and other large vessels. Other specialized shuttle designs are in the design stages, with some already being tested.

All shuttlecraft carry registration numbers corresponding to their home ship, followed by a slash and the shuttle number. (Aquashuttles follow this with an "A".) Starbase and other permanent ground-based shuttles sport a four-digit base number instead of the ship registration number. "Floating" shuttles bear four alphabetic characters, a slash, and a single digit to designate them.

(EXAMPLES: U.S.S. Enterprise shuttle NCC-1701/7; Starbase Three shuttle NCC-6994/9; "Floating" shuttle NCC-KGGX/2).

Naming of shuttles is left strictly up to base or starship personnel. Many ships and bases have a unifying theme for their shuttles. The U.S.S. Enterprise, for instance, names all their shuttles after famous explorers and scientific discoverers. Thus they have standard shuttles with names like "Galileo" and "Columbus", and an aquashuttle named "Cousteau". On some ships, the christening of a new shuttle is a great excuse for a party. (Morale officers, take note!)

GENERAL NOTES

- 1) Crews consist of officer grades only. These are the elite of Star Fleet. All crewmembers rank Ensign or above.
- 2) Crews on most ships generally run 1/4 to 1/3 female.
- 3) Crews generally are drawn primarily from one race. Usually less than 2% are from other Federation races. This is to establish a cohesive social environment and to minimize the number of separate environments, medical supply stocks, and food stocks that must be carried.
- 4) Ship's duties to include:
 - A. Investigation/exploration of unknown worlds/civilizations.
 - B. Providing aid to established colonies.
 - C. Acting as a diplomatic envoy of the Federation.
 - D. Enforcing trade laws.
 - E. Acting defensively if need be in it's assigned sector.
 - F. Operating independently of higher authority when needed.

DECK DESCRIPTIONS

MAIN HULL

DECK 0: Sensors

Sensor equipment is located here under a dome. Access is through the ceiling of deck 1. This equipment supplements readings received from the main dish.

DECK 1: Bridge

Center deck

This central 'command area' is built lower than the surrounding deck. The ship's captain's command chair is swivel mounted so that he/she may swing to observe any station on deck. The chair arm-rests contain controls for the ship's log, computer access, and ship intercom.

Immediately in front of the captain's chair are the helm (port and navigation station (starboard)). Their combined panels have controls for ship's weaponry, deflectors, and navigation.

Surrounding this central area is a raised platform containing 8 work stations. Starting at the turbo-lift doors and moving counter-clockwise these stations are:

COMMUNICATIONS: Contains controls for all forms of communications, external and internal. Access to computer banks makes cross-reference possible for various forms of communications, in addition to access to all known codes used by any and all life forms. Internal communications can be to any individual station or room in the ship, several at a time, or ship-wide communications.

SCIENCES/COMPUTER: Controls all sensor information received. Virtually any type of data is capable of being received via sensors. Data received is analyzed, evaluated, and stored in the ship's computer. This computer stores an enormous amount of information (see Computer section of **STAR TREK: The Role-Playing Game** rules) on

almost any topic. Information obtained from the computer can be fed to any viewing screen or intercom station on board. The small hooded viewscreen to the left of the station (as you look at it) is capable of presenting any visual data stored, including photos, graphs, tables, etc. A standard private reception earplug provides audio data from various sources (many courtesy the communications station). All data (visual and audio) is stored on molecular stasis record chips.

NAVIGATION SUBSYSTEMS STATION: Provides visual readout on all navigational equipment and systems on board. This station is normally manned (by the assistant chief navigator) only when the ship is on alert status.

WEAPONS SUBSYSTEMS STATION: Monitors all weapons (offensive) systems and subsystems. Normally manned only during an alert by the weapons officer.

WEAPONS SYSTEMS STATION: Monitors all systems relating to defense, including deflector screen. Normally unmanned.

MAIN VIEWSCREEN: Not a manned station. This is a large video screen facing the helm/nav/command complex but easily seen by most bridge personnel. Through use of exterior and interior monitors, drone monitors, and transmissions from other vessels and bases, visuals are projected here electronically for the bridge personnel's use. Normally the view is in the direction of travel. A 360 degree view is possible, however. Magnification is possible up to about 1000 x normal.

ENGINEERING SUBSYSTEMS: Provides readouts on all subsystems. Normally unmanned.

ENVIRONMENTAL SYSTEMS: Monitors all environmental systems of the ship. Any changes in gravity, atmosphere, etc. are controlled and changed from here. Normally unmanned.

ENGINEERING: All engineering systems are monitored here. All power generation and channeling is controlled at this station. Manned by the Chief Engineer when his duties do not require his presence elsewhere.

DECK 2: Sciences

Forward deck, port to starboard

CHEMISTRY LAB
ENERGY LAB

Center deck, port to starboard

BIOLOGY LAB: Used to study new life forms encountered.

GEOLOGY LAB: Used to study geological and structure of natural bodies encountered. This lab is used in conjunction with the adjacent energy lab to analyze new possibilities of fuel.

Aft of center, port to starboard

SCIENCE OFFICER'S OFFICE
ION LAB

Aft deck

PHYSICS, UPPER LEVEL: The lab on deck 3 extends upward into this area.

DECK 3: Science labs

Forward deck

PHOTON TORPEDO BANK: 2 photon torpedo tubes and firing apparatus. Working clockwise.

BOTANICAL LABS: Besides studying new forms encountered, studies are conducted for more efficient plant life to be used in hydroponics for oxygen generation.

STORAGE: For lab equipment.

COMMUNICATIONS: Backup for bridge; acts as a switchboard for routine internal communications.

PHYSICS: Lower level of lab.

COSMOLOGY LAB

SPECIAL STUDIES: Used for any purpose deemed necessary by the Science Officer. May be used by a task force composed of personnel from many different labs and/or off-board scientists. In this instance the lab would be used as a general lab/conference/briefing facility for a group studying a special problem, such as an unknown creature or disease threatening a planet. Also used as a classroom for ship personnel.

DECK 4: Quarters

Center deck

CONFERENCE ROOM: For the use of junior officers and passengers on this deck, and for bridge personnel use.

In a ring around, as shown.

STATEROOMS: For the use of junior officers and important passengers requiring double occupancy.

Surrounding these are water storage tanks, pumps, and associated machinery.

DECK 5: Officer's quarters

(These will be dealt with in rings, starting at the center with number 1)

Ring number 1

LOUNGE AREA: Intended for senior officers, but by long-standing tradition open to any crewmember or visitor. Food service slots for snacks, drinks, etc. are present, as well as viewscreens for entertainment channels or video games.

Ring numbers 2, 3, and 4

STATEROOMS: Single occupancy rooms are for Senior Officer (Captain, Science Officer, First Officer, Chief Medical Officer, Chief Engineer, etc.) and VIPs. Double occupancy are for Junior Officers and passengers. Exact placement of specific officers' quarters varies from ship to ship.

Outer rings

MACHINERY, BATTERIES, PHASER BANK ROOMS (port and starboard upper), AIR CONDITIONING, ETC.

DECK 6: Crew quarters

Aft deck

IMPULSE ENGINES: Extends down into deck 7
ENGINEERING/IMPULSE: Equipment, controls for impulse engines. Extends down into deck 7.

ELEVATOR MAINTENANCE SHOP: This area contains equipment for repair and maintenance of turbo-elevators. Computerized controls exist here for monitoring all elevator functions. Cars can be recalled here or sent to any location on a priority basis, overriding local elevator control.

Remainder of deck

STATEROOMS: Double occupancy staterooms for crew. These occupy the majority of 7 rings on this deck.

MESS ROOMS: Occupy center core of deck. Food is delivered via a small turbo-lift from food service facilities. This smaller lift runs parallel to normal-sized turbo lifts through the ship. Since crew operates in 3 shifts around the clock, mess rooms are used in shifts. Crew is able to more or less eat when they please during their shift, however. Those desiring to do so may get food from the various outlets scattered around the vessel (adjacent to turbo lift doors and in some lounges). They may then eat in their rooms or, when necessary, at their duty station.

LOUNGES: Scattered throughout the ship. These small lounges allow for crew interaction on a small scale. These small lounges contain video and musical equipment, reading material on monitors (some locations have printers to produce hard copy), and other small-scale leisure equipment (such as games). Many activities are set up, with tri-dimensional chess playoffs, bridge tournaments, and other competitive activities quite popular. Inter-divisional competitions are quite popular. Many crew members use the lounges for informal gathering places to play musical instruments and have sing-alongs.

BRIEFING ROOM: A small room used for crew instruction, meetings, small hearings, etc. In use almost around the clock, as instruction in all areas is strongly encouraged. Classes are held as refreshers, to impart new information, and for anyone just plain interested in broadening his/her horizons. Not all her classes held are of a "practical" nature. Informal courses in tri-dimensional chess, literature, music, etc are also held. Crewmembers with specialized knowledge can get special duty arrangements if they are willing to teach what they know. These rooms can also be reserved for private use by small groups.

DECK 7: Main deck

Forward deck

SENSOR/DEFLECTOR EQUIPMENT

Aft deck

IMPULSE ENGINES: From deck 6.

Center Core

SHIP'S COMPUTER: Memory banks for the ship's computer. Extends down into deck 8. These are the most extensive memory banks on board a vessel in Star Fleet. They contain the entire knowledge of the Federation.

EMERGENCY BRIDGE: Used if the main bridge (deck 1) is out of commission due to damage or malfunction.

(The remainder of this deck is dealt with in 'rings', with ring 1 being the innermost. Descriptions will start with the room farthest forward, then proceed clockwise.)

Ring 1

HEAD

MEDICAL LAB: Used for research and tests in the medical department.

OPERATING ROOM/EXAMINING ROOM: Used examine badly injured personnel, and for surgery.

INTENSIVE CARE UNIT: Used to monitor critically injured or ill. Each bed unit has built-in monitors. (See **STAR TREK: The Role-Playing Game** medical section)

HEAD

MEDICAL SUPPLIES STORAGE

CHIEF SURGEON'S LAB: Used primarily by the Chief Surgeon and his assistants for research and studies.

CHIEF SURGEON'S OFFICE

INTENSIVE CARE UNIT

Ring 2

CONVALESCENT WARD: For the recovery of critical patients.

HEAD

CONVALESCENT WARD

THERAPEUTIC BATHS

HEAD

STATEROOM: For Medical personnel

DENTAL UNIT (3 Rooms)

OBSTETRICS

SHIP'S CAPTAIN'S OFFICE: Reception area outside in the smaller room. This is the office used when Captain is not on the bridge or in his quarters. Used for formal individual or small meetings. He will normally use the outer office of his quarters for informal talks. Has a private bathroom.

CHART ROOM: A holdover from the non-electronic/computer age. Although all navigational data is stored in the computer, the old naval tradition of a chart room still is strong. This room contains hard copies of navigational charts. This room has facsimile equipment to reproduce charts and maps, and a viewscreen.

CHIEF NAVIGATOR'S OFFICE

STORAGE

BIO-CHEMICAL LAB

DOCTOR'S OFFICE (2)

MEDICAL RESEARCH LAB: Acts as a general purpose medical lab for all types of studies connected to this department.

MEDICAL RECEPTIONIST

MEDICAL SECTION WAITING ROOM

NURSE'S QUARTERS/OFFICE

HEAD

CONVALESCENT WARD

HEAD

CONVALESCENT WARD

Ring 3

VISICOMS: These "visual telephones" can be used to contact any area of the ship, or even to record personal messages to be beamed home. Messages are stored by the computer and sent out at regular intervals under the control of the ship's computer and the Chief Communications Officer.

STATEROOM

HEAD

STATEROOM

TRANSPORTER ROOM NUMBER 2: 6-man transporter

TRANSPORTER ROOM NUMBER 4: 6-man transporter

CHAPEL: Used for religious services, weddings, memorial services, etc.

STATEROOMS: (3) These, directly across from the Captain's office, could be used for VIP's.

BRIG: Consists of 10 cells, all with force-field protective doors (non-solid).

MESSROOM/WAITING ROOM: Used for security personnel on duty.

SECURITY OFFICE: Used by whomever is in charge of security detail on the current watch.

BRIEFING ROOM: This is a briefing room used primarily by bridge personnel and medical department. Used also as a staging area for personnel about to use the transporters for last-minute instructions. Used also as a de-briefing area for landing parties.

TRANSPORTER ROOM NUMBER 3: Transporter normally used on most vessels for landing parties.

TRANSPORTER ROOM NUMBER 1: 6-man transporter.

MESSROOM: Used primarily by medical personnel.

LIBRARY: Although most stations have monitors to access the ship's computer, most single staterooms do not. Therefore, personnel may be found here at almost any time, studying. Also, privacy not easily obtained in the lounges is available here. Printers to obtain hard copy are also located here.

EXECUTIVE OFFICER'S OFFICE: Used by the second in command.

Ring 4

CARGO HOLDS: Used for bulk storage of liquids and other bulk storage. Occupies the entire ring except for:

SMALL ARMS ARSENAL: Located directly aft/port of the BRIEFING ROOM/SECURITY OFFICE. This room is normally locked and guarded, either by personnel or monitor.

Ring 5/6

Consists of double-occupancy staterooms and lounges.

DECK 8: Entertainment/Recreation

Center core

SHIP'S COMPUTER BANKS: From deck 7.

Forward deck

22-MAN TRANSPORTER: Used for emergencies only, such as abandoning ship.

Aft of this, moving clockwise

LOUNGE

RECREATION CENTER: Through the use of holographic projections and other complicated scenery, it is possible here to 'cure homesickness' to some extent. The machinery is capable of producing, with the help of the ship's computer, realistic simulations of the sky, wind, vegetation, animals, etc. of the user's home planet, or any other setting desired. Normally, a setting is kept simulating a park-like environment associated with the main crew complement's home world(s). This equipment could be dangerous in the wrong hands (or if it malfunctions), as it is quite capable of creating deadly environments, such as an Earth blizzard, hurricane-like winds, even a flood. This area is constantly monitored by the ship's computer to avoid such problems.

22-MAN TRANSPORTER

SHIP'S LAUNDRY: Takes clothing and breaks them down into original components, extracts foreign matter, then recreates the item in the needed shape and size. The ship's computer stores sizes, so clothing is always immediately available.

FOOD PREPARATION FACILITIES: Automated food preparation for the ship. Food is sent via small turbo-lifts to the entire ship. Almost any type of food or drink can be recreated here, with a menu of thousands of items from all over the Federation.

22-MAN TRANSPORTER

GYMNASIUM: A large room, complete with equipment, showers, and lockers. Besides allowing crew members to work out on their own, mandatory classes are held to keep personnel in shape. This area has local gravity controls for simulation of high-gravity worlds or zero-G combat exercises.

ENTERTAINMENT FACILITY: For large group activity, such as receptions, movies, etc. Holographic facilities are used here also, really making the viewer a part of the story. Holographic projected 'mail call' is done here also.

Outer ring

AIR CONDITIONING EQUIPMENT

FRESH WATER STORAGE

DECK 9: Fabrication

Center core

MATERIALS RECLAMATION FACILITY: All material thrown away is channeled through here to be broken down into components. From here components go to bulk storage or fabrication units for manufacturing.

Ring Number 1

Stbd/Fwd

ORGANIC FABRICATION

Stbd/Aft

NON-ORGANIC METALLIC FABRICATION

Port/Aft

SANITARY WASTES RECOVERY SYSTEMS: All wastes are brought here for recycling. Nothing is wasted aboard ship.

Port/Fwd

NON-ORGANIC NON-METALLIC FABRICATION

Outer ring
RAW MATERIALS STORAGE

DECK 10: Cargo
Aft deck
CARGO TRANSPORTER (See **STAR TREK: The Role-Playing Game** rules on transporters.)

Remainder of deck
CARGO HOLDS
RAW MATERIAL STORAGE

DECK 11: Auxiliary Fire Control
Center deck
AUXILIARY FIRE CONTROL: From this location, phaser weaponry can be fired manually, in case equipment allowing remote firing from the bridge is damaged.

Forward deck
FORWARD PHASER BANK

Remainder of deck
RAW MATERIAL STORAGE

DECK 11A: Lower sensor platform

SENSOR EQUIPMENT

DECK 9—DORSAL

AUXILIARY MACHINERY ROOM

OBSERVATION LOUNGE: These occupy most of the small dorsal decks. Having 'windows' to outside, these are popular informal gathering areas.

DECK 11—DORSAL

DECK 13—LOUNGE

OBSERVATION LOUNGE

DECK 12—DORSAL

CAPTAIN'S VERANDA: An observation lounge used by the command officers, especially for guests and dignitaries.

DECK 13—LOUNGE

DECK 14—DORSAL

LOUNGE (Central)
STORAGE (Outer)

SECONDARY HULL (ENGINEERING HULL)

DECK 15: SECONDARY HULL STRONGBACK
Center of hull (Fwd to Aft)
SENSOR EQUIPMENT ACCESS: Access to main sensor dish equipment is through here.
VISICOMS
DORSAL AND SECONDARY HULL AIR CONDITIONING EQUIPMENT

Outer structure is support pylons, water tanks, and dorsal connectors.

DECK 16: Medical/Warp Engineering

Forward deck, port to starboard
HEAD
DENTAL OFFICES
DOCTOR'S OFFICE
MEDICAL RESEARCH LAB
STORAGE LOCKER

Continuing Aft, Stbd of corridor
STORAGE

Port of Corridor
OPERATING/EXAMINING ROOM
INTENSIVE CARE UNIT

Aft of Medical Unit
MAINTENANCE SHOPS (8): Used by engineering for all types of repairs. Some oft-used parts are stored here, although fabrication units can produce most items as needed.

Aft of Dental Offices, stbd side of corridor
RECEPTION/NURSES STATION
CONVALESCENT WARDS (2)
TURBO-ELEVATOR REPAIR SHOPS: Lift units are brought here for repair and storage.

Port side of corridor
MEDICAL STORAGE
MEDICAL OFFICE: Usually the Assistant Chef Surgeon.
PRIVACY ROOMS: Used for private meditation.

Aft of turbo repair
ENGINEERING COMPUTERS: Although a part of the main ship computer, separate facilities are maintained for easy access by engineering department.

Aft of shops/computer
WARP ENGINEERING: Controls and panels for both warp engines. Aft of this is access to Jeffries tube to engines. Support pylons for warp drives connect here.

Aft deck
UPPER HANGAR DECK/HANGAR DOORS: This extends down 3 more decks.

DECK 17: Crew quarters
Forward deck, port to starboard

MESSROOM

BOTANICAL: Opening from deck 18 for tall vegetation.

Center deck

STATEROOMS: 12 double occupancy quarters for personnel assigned to medical/engineering in this hull.

Outer deck, port and stbd, fwd to aft

MESSROOM

ENVIRONMENTAL SUIT LOCKERS: These are scattered throughout the ship on most decks.

STORAGE

Aft deck

OBSERVATION GALLERY: Observation area for shuttle facilities. This area oft times is crowded with off-duty personnel when shuttles are in use, as minor diversions are welcome at times.

CONTROL TOWER: (One each side) Operation of shuttle bay doors, shuttle elevator/turntable, atmosphere control, and cargo handling in the bay are handled from here.

DECK 18: Botany/quarters

(Fwd of deck is main sensor array)

Forward deck, port to starboard

HYDROPONICS LAB: Fresh fruit and vegetables, along with various other plants are grown here. There is no possible way enough food can be grown on board for the entire crew; the truth is, most crew members are not used to this type of food anyway. However, some food is grown for special occasions, as are flowers for use in weddings, etc. This section is manned by personnel from the botanical section. There is space devoted on a request basis for hobbyists.

BOTANY SECTION: (Lower level) Used to maintain plant life for study or transport.

Center deck, Port

MESSROOM

LIBRARY

ENVIRONMENTAL SUIT LOCKER

Aft deck

SHUTTLECRAFT HANGAR (open)

DECK 19: Bridge, Hangar

Forward deck

BRIDGE/SHIP'S COMPUTER: Duplicate of primary hull bridge/computer. Used when secondary hull operates independently of main hull.

Aft of BRIDGE, port to starboard

BRIEFING ROOM: Used primarily for personnel using shuttlecraft.

STATEROOMS

Center deck

STATEROOMS (To shuttle deck)

Outer hull, port side

BRIG

SECURITY SECTION

SMALL ARMS ARSENAL

STORAGE

ENVIRONMENTAL SUIT LOCKER

Outer hull, stbd side

STORAGE

STORAGE

ENVIRONMENTAL SUIT LOCKER

Aft deck

HANGAR DECK. Located center is elevator/turntable to lower deck. This ship class carries 6 shuttlecraft, normally stored below this deck. Usually at least one shuttlecraft is ready for takeoff at all times.

DECK 20: Recreation/shuttle maintenance

Forward deck

SUN DECK: Relaxation area for off-duty personnel, used to 'get a tan'. This deck is not, of course, actually exposed to radiation from outside the ship. Sunny tan-producing conditions are simulated with safe ultraviolet lighting disguised with holograms.

POOL: Full-size swimming pool (18.3 m) available for use by aquatic alien races such as the Aquans of Argo.

Aft of pool, port

RECREATION AREA: As in main hull.

Aft of pool, stbd

SHOWER ROOMS

LOCKER ROOMS

GYMNASIUM

Center deck, port to starboard

STORAGE

ENVIRONMENTAL SUIT LOCKER

STORAGE BATTERIES

STORAGE BATTERIES

ENVIRONMENTAL SUIT LOCKER

STORAGE

Aft deck, fore to aft

SHUTTLECRAFT MAINTENANCE AREA: Repair area with shops and parts storage.

STORAGE

CARGO HOLDS

HANGAR DOORS OPERATING MACHINERY

DECK 21: Food preparation, shuttle storage

Forward deck

POOL MACHINERY

POOL (Second level)

STORAGE: Both sides of pool

Center deck, fwd to aft, port to starboard
SHIP'S LAUNDRY
MATERIALS RECLAMATION FACILITY
FOOD PREPARATION: Supplements primary hull facilities in addition to serving secondary and dorsal hulls.

Aft deck

SHUTTLECRAFT STORAGE AREA: Home to shuttles when not being serviced or on "standby".

DECK 22: Fabrication

Forward deck, port to starboard

SANITARY WASTES RECOVERY
22-MAN TRANSPORTER (Emergency use only)
ENVIRONMENTAL SUIT LOCKER
MANUAL FOOD PREPARATION: Used by those personnel wishing to prepare food without the aid of the food preparation machinery. Available to those hobbyists who like to cook.

MESSROOM: For food prepared manually.

22-MAN TRANSPORTER

ENVIRONMENTAL SUIT LOCKER

Center deck, port to starboard

RAW MATERIALS STORAGE: along port side.

ORGANIC FABRICATION

NON-ORGANIC NON-METALLIC FABRICATION

REFRIGERATED AND FROZEN MATERIALS

STORAGE: Along all of stbd side.

Aft deck

STORAGE: As per rest of deck

NON-ORGANIC METALLIC FABRICATION

DECK 23: Cargo, storage

Forward deck, port to starboard

STORAGE

TRACTOR BEAM MACHINERY

STORAGE

Rest of deck, except for aft, is STORAGE

Aft deck

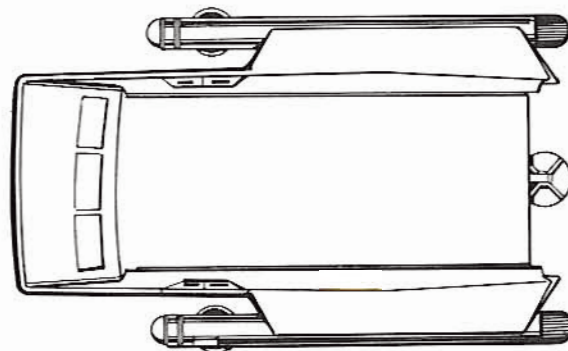
CARGO TRANSPORTER

DECK 24: Hull bottom

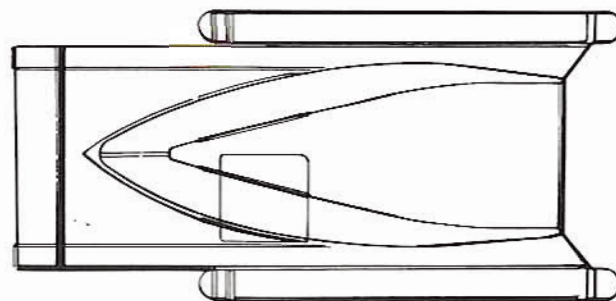
Forward deck

TRACTOR BEAM PROJECTOR

Rest of deck is storage, cargo holds.



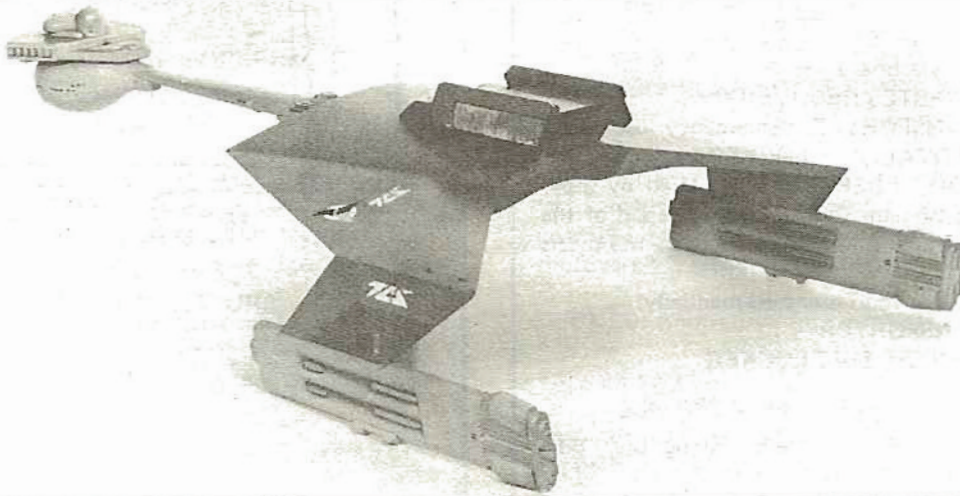
SHUTTLECRAFT PLAN VIEW



AQUASHUTTLE PLAN VIEW

UNITED FEDERATION OF PLANETS STAR FLEET ACADEMY

SHIP RECOGNITION HANDBOOK UNFRIENDLY POWERS KLINGON EMPIRE D-7 CLASS BATTLECRUISER



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For use with ship recognition deck plans-Klingon D-7 Battlecruiser

DIMENSIONS

Overall Length	216 m
Overall Width	152 m
Overall Height	55 m
Weight (empty)	110,000 metric tons
Deck ceiling height	2.4 m

MOBILITY DATA

Max safe cruising speed	WF 6
Emergency speed	WF 8

ARMAMENT

Disruptors 2 banks of 2
Mounted port and starboard on forward edge of warp engine nacelles

(Note: This is standard armament as of commissioning of the class ship. Later versions may be armed differently. See armament info under "Variations").

OTHER FEATURES

Transporters	
6-person standard use	3
18-person emergency	1
22-person combat drop	5
cargo	2
Shuttlecraft	5
Tractor Beams	
Bottom of forward pod	2 (P/S)
Forward of hangar deck	3
Entrance - hangar deck	2 (P/S)
Main propulsion units	
Warp nacelles	2 (P/S)
Impulse drive	1 (aft decks 3 & 4)
Aux. impulse drive	1 (aft end of boom)
(used only after emergency separation)	

EMERGENCY SEPARATION

Under extreme circumstances, it is possible to separate the forward pod and boom from the main hull and operate both sections independently at sublight speed. Such separation would only be attempted if one section or the other were badly damaged, in an attempt to break off combat and escape with the other section.

To implement separation, the ship must first slow to sublight speed. A 30 - second warning (three turns) is usually given to the crew, though Klingon commanders have been known to ignore this requirement in dire circumstances. The boom is then separated by activation bolts at the joint.

The boom/forward pod is controlled from the normal ship's bridge or the auxiliary control room. The main hull is controlled from a special control room aft (Deck 6).

After separation, the boom can maneuver and move at .82 lightspeed. The separate boom does not possess enough spare power to fire disruptor weaponry (on variants mounted with such) but a photon torpedo (on variants equipped with them) may be armed ONCE and fired. The boom has no shielding once separated.

The separated main hull, since it has the warp engines, has enough power to operate normal shielding and weapons. It is not capable of warp drive on its own, as its structural integrity has been somewhat compromised by the separation of the boom. The separate main hull is capable of up to .97 lightspeed.

The main hull, once separated, is still capable of full self-destruct. The boom section may also destroy itself completely, but since the anti-matter explosion of warp nacelles is the dangerous part of a self-destruct situation (dangerous to other shipping, that is . . .), no damage is likely to be taken by nearby vessels if the boom section destructs.

The usual procedure for separation involves setting the main hull (with shields and weapons) to fighting a holding action while most important officers escape in the severed boom. It is naturally not widely known among Klingon crews, but the main hull section can have its self-destruct mechanism activated by remote signal from the boom. Desperate Klingon captains are suspected of having used this capability more than once to inflict damage on pursuing ships and giving the boom section time to escape.

CREW COMPLEMENT

NAVAL PERSONNEL

COMMAND	32
ENSIGN	
(equiv. Klingon grade)	60
ENLISTED	260
TOTAL	352

COMBAT TROOPS

OFFICERS	5
NCOs	15
ENLISTED	200
TOTAL	220

(NOTE: Klingon battlecruisers of this type have been known to carry larger numbers of troops by shopping most in cryothermia (cold-sleep). Cold-sleep capsules can be stored in the major cargo holds, with a temporary reawakening facility set up in one hold upon reaching the destination world or just before. Up to five times as many troops can be carried by a ship otherwise free of cargo in this manner. Since 5% of all troops shipped this way die during reawakening, officers and non-coms are usually transported awake, with only enlisted combat personnel placed in cold-sleep). (Gamemasters who have need for determining whether or not someone survives Klingon cold-sleep techniques should roll % dice for each individual checked. A result of 05 or less indicates death upon awakening).

VARIANTS IN D-7 PARAMETERS

NOTE: Variant ID number/letter combinations are Star Fleet designations, as the variant IDs used by the Klingons themselves are as yet unknown. Also, this list may not be exhaustive. It covers all D7 variants encountered up to the time this manual was prepared. Data that is approximate is noted as such, as most information has been gathered from encounters. This is continuously being augmented by Star Fleet Intelligence units.

(Game-related data will be given in parentheses as needed. This will allow those who desire it the option of drawing up needed control sheets to incorporate the variants in their games).

D7A Class ship, as far as we know. This was the first D7 encountered by Star Fleet. There are 4 disruptors in 2 banks of 2. They are located on the engine pods, 2 port and 2 starboard. (This is the D7 given on the full and gamemaster-controlled panels). This is by far the most common type of D7 in use. Number in use is unknown, however. Crew: 352 Naval, 220 combat.

D7B This is an up-gunned model of the D7A, the only known difference being the addition of 3 more disruptors under the forward pod. (These are the same in game terms as the D7A. They have a forward firing arc.) This model was encountered after the signing of the Organian treaty. It has been seen only outside the Organian Treaty Zone.

D7C This is a troop transport version. 1100 combat troops can be carried in this version. (See previous notes). Normal D7A weaponry is still carried.

D7P This variant is phaser-type weaponry. Rumor has it that only one vessel was thus equipped. The vessel supposedly exploded when the weaponry was used. This has not been confirmed.

D7R This is the variant in Romulan use. (Many notes on this variant are given in the deck descriptions). The ship carries 4 disruptors as per the D7A. It also carries a cloaking device and a plasma weapon (as per the Romulan Bird of Prey). The plasma weapon is located underneath the forward pod. The Romulans are known to have at least 8 of these vessels in use.

D7S Only one of these is known to exist. There may be more in use, however. Appears to be a normal D7A with one addition — a stasis projector. This is a beam weapon that effectively blocks the use of warp or impulse power on the target ship. The target is incapable of movement, transporter, or weapons use. (Range is 10 hexes; "to hit" is 1-10 at a range of 1, 1-9 at 2 hexes, 1-8 at 3 hexes, and so on. If the beam hits, the stasis field takes effect immediately).

The weapon has several drawbacks which have prevented its widespread use. First, it drains a lot of power from the firing vessel. (Movement limited to 1 hex per turn. No other weapon or shield use). Second, the beam cannot be used on more than one target at a time. Any attempt to do so breaks the hold on the original target. Third, the beam must be kept in use continuously to maintain the stasis field effect. (Only the first "to hit" must be

rolled. Consecutive maintenance on the target is automatic). Once the beam is turned off, power returns to the target immediately. Fourth, the beam can be maintained only for a limited time - 10 minutes. (60 game turns)

(It can be seen that two D7s, one with the stasis projector, and the other almost any type, can be quite deadly, if the stasis field can be turned on successfully on a lone ship. The other Klingon can then 'pound' the target into submission).

D7W This vessel uses a new type of warp drive capable of producing more power in the same amount of engine space. (Each warp engine can produce 25 points of power for use). Maneuverability is not increased (5 power points to produce 1 maneuver point). Improved shields, however, seem to make up for this. (Shields can go up to 15 points of power). Offensive weaponry is not affected, however.

DECK DESCRIPTIONS — FORWARD POD DECKS

DECK 0: Secondary sensors

SENSOR DOME: The hull covering this deck is transparent to sensors and acts as a protective bubble for secondary sensor devices so they can be serviced easily.

DECK 1: Bridge

BRIDGE: The major control center of the ship is here. The main viewscreen is forward, with the command chair on a swivel mount in the center. To port of the screen is the main sciences console, with the communications console to starboard. Swivel-mounted gunners' console/couches are to the extreme port and starboard of the command chair. These control all weapons functions. Aft of the command chair and to starboard is the navigation console. Helm controls are to port, with the two units connected by a low bank of control machinery.

DECK 2: Life sciences

Port side

BIOCHEMISTRY LAB: This lab is used to study life forms encountered. Although this is not a research-exploration oriented vessel (as the Constitution class vessels of the Federation), some basic research facilities are maintained.

Starboard side

MEDICAL RESEARCH LAB: This lab is sometimes used for development of truth drugs, poisons, torture techniques, and other more subtle additions to the Klingon biochemical arsenal, as well as for more mundane medical research. The lab is equipped with a monitor bed and complete diagnostic/surgical unit.

DECK 3: Life sciences

Forward deck, port to starboard

CHIEF SURGEON'S OFFICE

MEDICAL PATHOLOGY LAB

SUPPLY STORAGE

OPERATING ROOM: Contains two monitor beds and diagnostic/surgical units.

MEDICAL RECEPTION ROOM: Usually manned by an orderly, who handles minor cases.

INTENSIVE CARE UNIT: Contains five monitor beds and two desks with monitor repeater screens.

HEAD

Extreme port and starboard

LOUNGE/WAITING ROOM

Center deck, port to starboard

PHYSICAL THERAPY ROOM

ASST. MEDICAL OFFICER'S OFFICE

MEDICAL OFFICE (JUNIOR OFFICERS)

RECOVERY WARD: Beds here are not equipped with medical monitors.

HEAD

Aft deck

AUXILIARY COMPUTER BANKS — LIFE SCIENCES

DECK 4: Command offices

Forward deck, port to starboard

TRANSPORTER ROOM 4P: This station (and its twin to starboard) is used for most standard missions, landing parties, etc.

BRIEFING ROOM 4A: Computer readout screen recessed below table emblem, controlled from any table edge station.

BRIEFING ROOM 4B

CAPTAIN'S OFFICE

HEAD

EXECUTIVE OFFICER'S OFFICE

BRIEFING ROOM 4C

BRIEFING ROOM 4D

TRANSPORTER ROOM 4S

Center deck

MAIN SHIP'S COMPUTER BANKS

Aft deck

SENIOR OFFICERS' MESS: Food delivery units are at center aft, and is served by stewards. The long Captain's Table also has its own food delivery system.

DECK 5: Food preparation

Forward deck, port to starboard

JUNIOR OFFICERS' MESS: Food delivery systems are built into the tables, though the selection is less elaborate than in the senior officers' mess. There are no steward/attendants.

MANUAL FOOD PREPARATION: Kitchen facilities available to officers for preparation of special dishes.

Center deck

REFRIGERATED STORAGE

AUTOMATED FOOD PREPARATION: Standard menu items are prepared here for delivery to food delivery locations elsewhere.

Aft deck

EMERGENCY STANDARD GAS STORAGE: Atmospheric gas storage, under high pressure, for emergency replenishment of life support equipment.

DECK 6

Forward deck, port to starboard

INSPIRATIONAL MEDIA ROOM: Used for indoctrination and propaganda, with periodic attendance required for most junior officers. Most crewpersons are exposed to various types of propaganda almost constantly. (VARIANT: Romulan-operated D-7 Battlecruiser — **EXPANDED COMBAT ARENA:** This area features more extensive combat sports facilities, with all members of the crew required to participate. Those who excel at sports and combat exercises are highly regarded, and may earn special privileges with good performance. Training is rigorous and highly disciplined.)

OFFICERS' GYM: Includes a wide assortment of physical training equipment including weight machines, parallel bars, and a small arena similar to a (round) Terran "boxing ring". The arena is used for unarmed combat practice, and staging occasional trials by combat, sometimes called for under Klingon law.

Center deck

AUXILIARY CONTROL ROOM: A "second bridge" with security-locked override controls. Command chair, helm and navigator's station are at center, as on the main bridge. Stations around the periphery (clockwise from elevator) are Weapons Control, Sciences, Viewscreen, Communications, and Engineering Auxiliary. (When the main bridge is in operation, engineering controls are centered in the engineering section). This control room can be used if the regular bridge is damaged or captured by enemy boarding parties.

Aft deck, port to starboard

CONFERENCE ROOM (VARIANT: Romulan-operated D-7 Battlecruiser — LOCKER ROOM)

LOCKER ROOM: Includes lockers, showers and head.

Boom section on this level contains the turbo-elevator connection to the main hull and bulk water storage port starboard.

DECK 7: Senior officers' quarters

Aft deck

EMERGENCY TRANSPORTERS: Multi-station transporter used only for abandon ship operation. (Such units draw an enormous amount of power, and are unsuitable for regular use). Small rooms port and starboard contain stores of emergency survival equipment.

Outer deck, clockwise from aft

COMMANDING OFFICER'S QUARTERS: Living room, bedroom and head

CHIEF ENGINEER'S QUARTERS

HEAD: Shared by Chief Engineer and Chief of Security

SECURITY CHIEF'S QUARTERS

EXECUTIVE OFFICER'S QUARTERS

Inner deck, clockwise from elevator

STORAGE AREAS

HEAD

CHIEF MEDICAL OFFICER'S QUARTERS

Center deck

ECM EQUIPMENT ROOM: Central location for electronic counter measures circuitry and monitoring, including sensor foolers and, on Romulan variants of the D-7, cloaking device hardware.

DECK 8: Junior officers' quarters

All junior officers (including chief helmsman, chief navigator, communications chief, weapons officer, and science officer, among others) live in double bunkrooms with shared bathroom facilities. Exact arrangement of quarters varies from ship to ship.

DECK 9: Intelligence facilities

Forward deck, port to starboard

INTERROGATION ROOM: For interrogation of important prisoners. Includes a monitor bed and medical equipment (including surgical facilities). Also featured are the famous Klingon agonizer booths, which serve the same function as the hand-held agonizer, but with finer control and more power. (VARIANT: Romulan-operated D-7 Battlecruiser) **SHRINE:** This room is usually outfitted as a shrine to the Romulan god-warriors. Each ship has its own special patron warrior deity, which will serve as a central figure for the shrine. Other statues and representations of god-warriors and other great herces will also be present. Traditionally, only a Romulan who has spilled blood in battle (a Romulan rite-of-passage) may enter without desecrating the shrine and inviting divine retaliation. Such retaliation is supposed to come in the form of bad luck or defeat in battle.

CLEARANCE FOR MAIN SENSOR TUBE

INTERNAL SURVEILLANCE ROOM: From this room, nearly any location on the ship can be monitored, if the proper security clearance is obtained. There are always security officers here, checking crew areas and sensitive locations on random searches. If characters are trying to hide or evade a search on board this vessel, allow the Klingon crew a saving roll on the Crew Efficiency Rating (or the Starship Security rating of the Security Officer, if one has been designated). A successful roll will cause intruders to be spotted if they enter a sensitive or important area.

Aft deck

BATTERY POWER: For emergency use.

DECK 10: Main sensors

Port and starboard

RAW MATERIALS STORAGE: For use in food preparation and/or material fabrication.

Forward deck

MAIN SENSOR DISH: Recessed in a shielded tube for maximum protection.

Center deck, port to starboard
SENSOR MONITOR ROOM
SCIENCES OFFICE

DECK DESCRIPTIONS — MAIN HULL

DECK 1: Shuttlecraft landing area

Aft deck
SHUTTLE BAY DOORS
SECONDARY TRACTOR BEAMS: Used for bringing aboard small vessels and other objects of interest.

Center deck
SHUTTLE LANDING AREA: Including landing beacons and drone launchers. Drones are used as targets for ship combat practice, and as probes. They are capable of sublight speeds only and are not suitable as weapons under normal circumstances, although they can be fitted with warheads for special uses.

Forward deck
ELEVATORS: Port and starboard, for lowering shuttles, drones and personnel to the shuttle staging area.

MAIN HULL TRACTOR BEAMS: Mounted on the forward hull of this deck.

DECK 2: Shuttle staging area

Aft deck
DRONE STORAGE: Storage area for drones of all types. This area is served by one of the landing area elevators.

SHUTTLE PARKING: Shuttlecraft are stored here between missions. Also, this serves as a staging area where shuttle passengers embark and disembark. The elevator then takes the already loaded shuttle to the bay above for launch. This is different from embarkation procedures used by Star Fleet ships such as the Constitution class vessels.

Center deck, port to starboard
SERVICE SHOPS: For maintenance and repair of drones, environmental suits, and other major pieces of hardware.

SHUTTLE REPAIR AREA: Maintenance area for shuttlecraft.

Forward deck
SERVICE SHOPS: As above.
EMERGENCY GENERATOR: Emergency power system, based on advanced fusion reactors. Reactor radiator fins are across the front of the hull in this area. This is the upper level, with the reactors continuing into the deck below, and accessed from that level.

DECK 3

Aft deck
MAIN IMPULSE ENGINES: For driving the ship at sublight speeds. This deck is open, with the engines continuing into the deck below but accessible at both levels.

Center deck
EMERGENCY GENERATOR: Continued from the deck above, including monitor systems and controls.
ENGINEERING COMPUTER BANKS: Computers controlling most engineering functions including warp and impulse engines, power systems, and life support.

Forward center deck, port to starboard
NON-COMMISSIONED OFFICERS QUARTERS: These four-person bunkrooms with attached shared bath facilities are mainly occupied by non-coms having duties in engineering.

CHIEF ENGINEER'S OFFICE
ENGINEERING SHOPS: Combined workrooms/laboratories for parts fabrication, testing, repair, etc.

Extreme port and starboard
WATER TANKS

Forward deck
ENGINEERING SHOPS: As above.
LIFE SUPPORT MACHINERY

DECK 4

Aft deck
IMPULSE ENGINES: Continued from deck above, including monitors and systems controls.

Center deck, port to starboard
POWER CONVERSION CHAMBERS: These systems convert warp nacelle power (from matter-antimatter reactions) to power usable for ship systems such as weapons, shields, etc. This is a sensitive area of the ship and is usually well guarded.

WASTE WATER RECOVERY: All waste water on the ship (including drain water, and water precipitated by the air conditioning system) is eventually recycled through these systems and back into the water holding tanks. The system is so efficient on modern ships that water actually accumulates (due to its being brought on board in food) and must on rare occasions be vented when all tanks are full!

Extreme port and starboard:
WATER TANKS

Forward deck
BUNKROOMS: For enlisted personnel, most of whom are assigned to maintenance, engineering, and ship services.

Extreme forward deck
PHYSICS LABORATORY

DECK 5 (BOOM): Laboratories

Forward to aft
WATER STORAGE TANKS
PUMP ROOM
ZOOLOGY LAB
CHEMISTRY LAB (port)
BOTANY LAB (starboard)
ION PHYSICS STUDIES LAB (engine development impulse) (port)

SPECIAL STUDIES LAB (starboard)

Forward deck, port to starboard

SICK BAY RECOVERY WARDS: Medical facilities on this deck are oriented toward the combat troops, whereas Deck 3 Forward Pod facilities are intended for naval personnel.

EXAMINING ROOM: Equipped with monitor beds and diagnostic equipment.

MEDICAL STORAGE AREA

OPERATING ROOM

INTENSIVE CARE UNIT: The desk in this room has repeater monitor screens for all monitor beds in the unit.

Extreme port and starboard

AIR CONDITIONING/FILTERING UNITS

Center and aft decks

BUNKROOMS: For combat troops carried by all large Klingon vessels. These troops are used as occupation forces on conquered worlds, boarding parties, and as armed members of landing parties.

DECK 6

Aft deck, port to starboard

TROOPERS' MESS: Food service machinery on the aft and starboard walls delivers basic meals, without the variety or extras offered by the units used by naval personnel.

EXAMINING ROOM: Equipped with monitor beds and diagnostic equipment.

MEDICAL STORAGE AREA

OPERATING ROOM

INTENSIVE CARE UNIT: The desk in his room has repeater monitor screens for all monitor beds in the unit.

Extreme port and starboard

AIR CONDITIONING/FILTERING UNITS

Center and aft decks

BUNKROOMS: For combat troops carried by all large Klingon vessels. These troops are used as occupation forces on conquered worlds, boarding parties, and as armed members of landing parties.

DECK 6

Aft deck, port to starboard

TROOPERS' MESS: Food service machinery on the aft and starboard walls delivers basic meals, without the variety or extras offered by the units used by naval personnel. Meals are served in shifts at set times.

AUXILIARY BRIDGE: This control room is designed for use if the boom and forward pod are separated from the the main hull in an emergency. The two sections can be operated separately, though only at sublight speeds. Separation would only be performed in an emergency such as the crippling of the main hull in battle. Once separated, the two units cannot be rejoined without major repair facilities.

NAVAL ENLISTED MEN'S MESS: Food service for naval enlisted men and non-coms, of a slightly better quality and less regimented nature than that provided for ground troops. Klingon military philosophy does not favor "pampering" the combat soldier. (VARIANT: Romulan-operated D-7 Battlecruiser — Romulan combat troops are elite fighters who are treated as heroes. Their mess facilities are usually the best on the ship. Romulans as a rule generally do not go in for "frills", being a spartan warrior race, but they do not mistreat the average combat soldier. Morale is very high among Romulan ground troops.)

Center deck, port and starboard

SECONDARY COMPUTER BANKS: Major computer complex for the main hull.

Middeck center

EMERGENCY BATTERIES

Forward deck

BUNKROOMS: These quarters are mostly for the junior enlisted men.

Extreme port and starboard

FUEL PROCESSING AND STORAGE: For impulse drives and auxiliary generators.

Extreme forward deck

AUXILIARY BOOM IMPULSE DRIVES: For use when boom is separated from main hull in emergencies.

DECK 7 (BOOM): Cargo

Forward to aft

WATER STORAGE TANKS

PUMP ROOM CARGO STORAGE AREAS (4)

DECK 7 (PORT)

Aft deck, port to starboard

CREW GYMNASIUM: Includes attached locker room. This area is somewhat misnamed, as it is mostly available to non-coms and not to enlisted personnel, except at scheduled times.

TRANSPORTER ROOM: This is the transporter facility used most often by enlisted personnel on routine duty. This transporter is also used when tight security must be maintained, as when transferring prisoners.

FROZEN FOOD LOCKER

Center deck, port to starboard

SHIP'S LAUNDRY: Klingon basic uniforms are not endlessly recycled, like Star Fleet uniforms on larger ships. Instead, they must be laundered. The ship's laundry uses special dry electrostatic processes to remove soil and stains.

MEDIA ROOM: Similar in purpose to the media room on Deck 7 in the forward pod, but used mainly by enlisted men and combat troops, who are required to see "inspirational" media presentations on a regular basis.

Forward deck, port to starboard

FIRING RANGE: All Klingon enlisted personnel are required to maintain a minimum competency with firearms. This range, and all firearms instruction, is overseen by the security department.

OFFICERS' LOUNGE (forward): Mostly used by officers in the security department, though it is theoretically open to any officer. Security personnel are the most mistrusted people aboard Klingon vessels, and maintain a discreet social distance from other officers. This is reasonable, as one of their major jobs is watching and informing on the crew and the other officers. Not even the Captain of a ship can totally trust his security officers. The Chief of Security is third in command, and every ship has at least one (usually several) operatives of the Klingon Secret Police aboard in undercover guise to watch the captain himself on behalf of the Klingon Imperial Fleet Command.

SMALL ARMS ARSENAL (aft): This guarded room contains disruptor pistols and rifles, as well as other weapons sometimes issued by the security department. Weapons may be recharged or repaired here, under the watchful eye of the ship's chief armorer.

Extreme port

MACHINERY: Includes warp drive channelling circuitry, life support systems, shield systems, etc.

DECK 7 (STARBOARD)

Aft deck, port to starboard

FROZEN FOOD LOCKER

AUTOMATED FOOD PREPARATION: This facility prepares the basic meals for the troopers' mess.

Center deck, port to starboard

ELEVATOR REPAIR FACILITY: For repair of turbo-elevators. This area contains master controls for all turbo-elevators, including the capability of locking out a station, so no cars can stop there. Controls here can also override local control and call a specific car from anywhere, or send a car from one station to another with a "priority override" program, preventing any other car from taking precedence.

GUARD LOUNGES: For use by security guards who are "on call", but have no specifically assigned duties.

Forward deck, port to starboard — security section

INTERNAL SECURITY OFFICE: The home of the dreaded Internal Security Department. An enlisted man *called here would be scared to death — and with good reason.* Even officers of other departments get nervous when sent here for one reason or another!

INTERROGATION ROOMS: These rooms are little more than cubicles — not as well equipped as the interrogation facility in the pod on Deck 9. These rooms are mainly used for internal security interrogations.

SECURITY MESSROOM: This messroom is small, but equipped with food service the equal of the non-com's mess room on Deck 6. Again, this is a reflection of the social distance between security personnel and other ship's crew. It is also convenient to have a small mess area for guards "on call".

CELLBLOCK: All cells have audio-visual monitoring devices, but not all may be actively watched. (You never know...) On most D-7 vessels, the cell doors are transparent force fields which cannot be penetrated by material objects, or disrupted by known hand weapons fire. Early models, however, may have old-fashioned steel doors with electronic locks.

(VARIANT: Romulan-operated D-7 Battlecruiser — On Romulan ships, the security area is much smaller, as there are almost never prisoners to guard. Romulans are also less paranoid about internal security. The security facilities shown would be cut back to a simple office or two and a couple of brig cells. The security mess room would remain on most such ships. The rest of the room would be converted to quarters for security guards and soldiers.)

Extreme starboard

MACHINERY: As noted on portside plan, this deck.

DECK 8

Aft deck, port to starboard

GENERAL FABRICATION: Automated fabrication equipment for manufacture in quantity of small items of hardware. Computer-controlled machinery such as this feeds from raw materials storage areas. Many things can be recycled almost endlessly in this manner, thus cutting down on the number of specialized items that must be stocked and carried by the quartermaster's department in ship stores.

SMALL ARMS ARSENAL 8S: Same as the portside arsenal.

ORGANIC FABRICATIONS: Automated fabrication of organic compounds and organic materials, such as some plastics and resins.

Forward deck, port to starboard

SHIP STORES: This is the central distribution point for the quartermaster's department, responsible for fabrication, control, distribution and repair of ship's equipment. Everything from blankets to communicators is handled by this office. Fabrication of weapons and weapon parts is also done by this department, but under the strict controls of the security department. (Weapons and parts are not stored here, but rather kept in the armories.) Uniforms are made by this department and stored here, and recycled when too worn or damaged for further washings. Like all supply personnel in armed services anywhere, Klingon quartermasters are great traders and "scroungers", making outrageous deals to get needed equipment and supplies. In this respect, they have perhaps more freedom to act than any Klingon ship personnel. *Not even security wants to upset the quartermaster too much, unless it is absolutely necessary.*

METALLIC FABRICATION: Automated equipment for fabricating metallic items.

SANITARY WASTE RECOVERY: All waste materials are processed through automated machinery, which breaks it down into component elements for storage in raw materials storage compartments.

MATERIALS RECLAMATION: Worn uniforms, broken parts and materials, etc. are brought here, where they are broken down into component materials for later recycling as new items, much in the same manner that waste materials are handled next door.

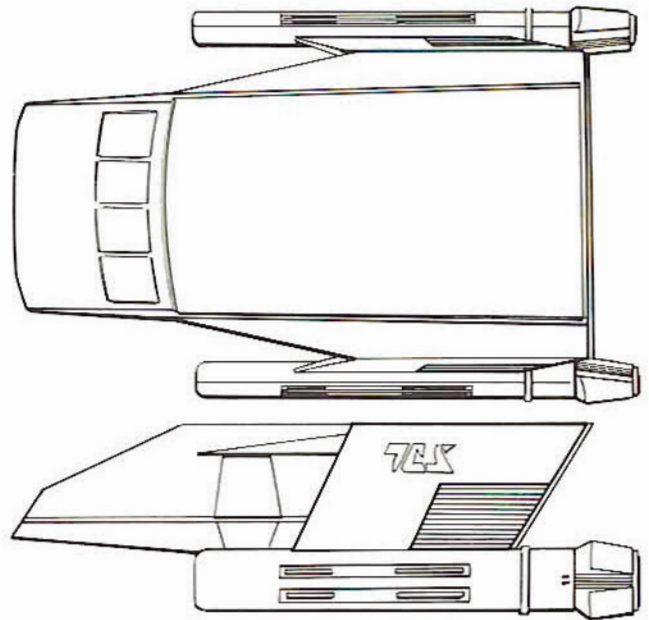
Extreme port and starboard

STORAGE AREAS: For raw materials and equipment used by the various systems on this deck. Retrieval of materials from this area is by automated conveyor systems, though entry by ship personnel is possible through normally-sealed access hatches.

DECK 9: Cargo

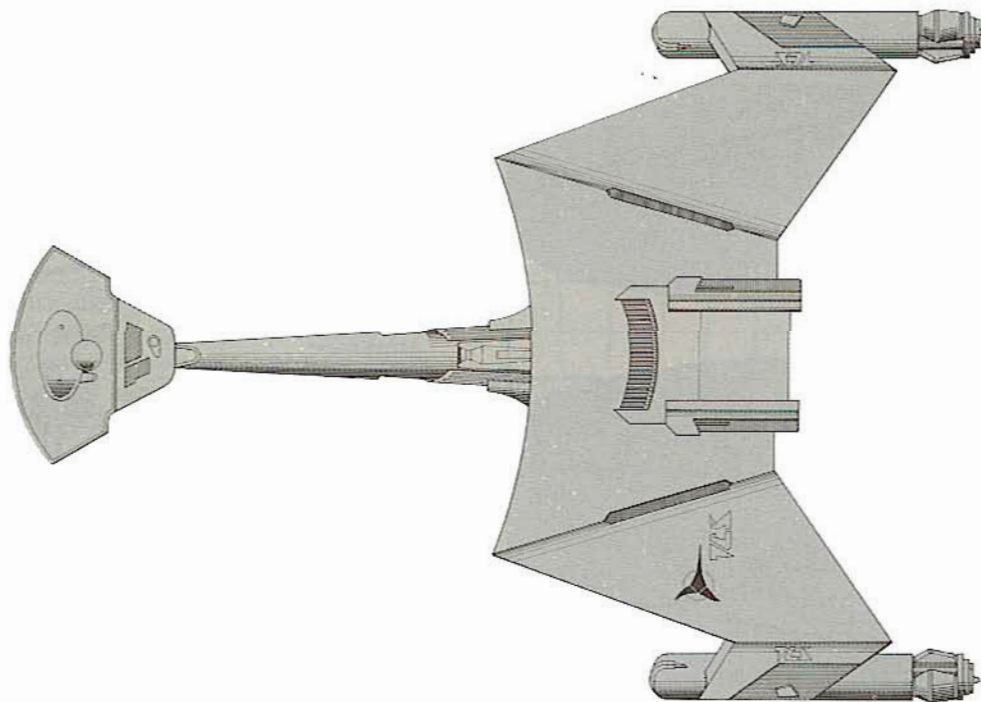
All of Deck 9 is devoted to cargo handling and storage. Two large cargo transporters are present (one each to extreme forward port and starboard) for beaming non-living items only. Tuning on cargo transporters is less precise than personnel transporters. Any living organism sent in this manner runs a risk of being reassembled in less than viable condition. (Gamemasters: If living organisms are sent in this manner, roll 1D10 for each. On a roll of 1, the animal or being in question has experienced reassembly error of one type or another. If so, roll 1D10 again. On a roll of 1, the error has caused brain damage, and the organism is hopelessly and permanently insane. This will not likely be a subtle insanity, but rather total idiocy or outright raving, incoherent lunacy. On a roll of 2-5, the being or animal is badly deformed in some way, the extent and effects of such deformity left to the gamemaster. On a roll of 6-10, the organism is too badly damaged to live, and dies within 1D10 hours, unless put out of its misery sooner).

The rest of the deck is made up of several cargo holds. Special cargo requiring unusual handling or special security is stored in the small holds to extreme center port or starboard. More partitions can be added in any way that cargo handlers desire.



KLINGON SHUTTLECRAFT

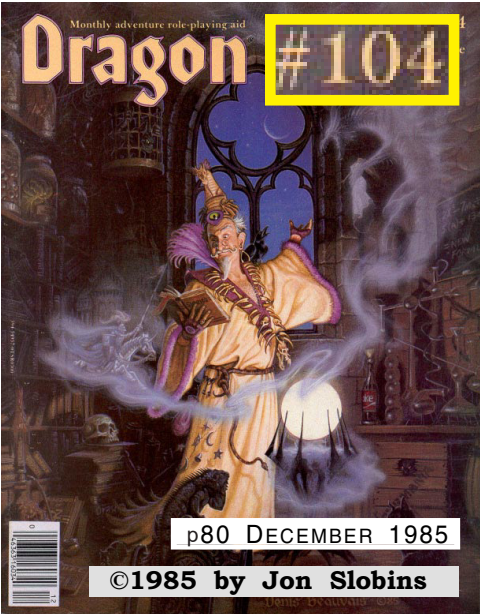
The Klingon shuttlecraft is roughly the same size as the Federation standard shuttle. It can be operated by one person but can carry a total of seven plus small equipment. The shuttle is capable of reaching a speed of .83 lightspeed. It carries a disruptor cannon in a front top turret. (Twice the range and damage of a disruptor rifle). This cannon is useless in ship-to-ship combat. It is used mainly for defense of the shuttle while on the ground.



Kzinti Police Ship Combat Tables

ACTION OPTIONS

	Move 4, 5, 6 hexes 2 Def	0 Disr
	Move 3, 4, 5, 6 hexes 1 Def	2 Disr
	Move 0, 1, 2 hexes 2 Def	2 Disr
	Move 0, 1, 2, 3, 4 hexes 2 Def	1 Disr
	Move 0 hexes 3 Def	1 Disr
	Move 0, 1, 2 hexes 3 Def	0 Disr



Turn Chart			Disr Table		
Spd	Eng	Sup	Rng	To Hit	Dmg
sub	-	-	1	1-10	3
W1	-	-	2	1-9	3
W2	-	-	3	1-7	2
W3	-	1	4	1-5	2
W4	-	2	5	1-3	2
W5	1	3	6	1-3	1
W6	2	4	7	1-2	1
			8	1	1
DMG Chart			DEFLECTORS UP		
Die roll Damage			FWD		
1	IMP		PORT	FWD	STBD
2	Disr		FWD		FWD
3	Super				
4	Super				
5	Defl				
6	Defl				
7	Defl				
8	W Eng				
9	W Eng				
10	W Eng				

ENGINE STRESS/DMG

MAX SPD 6	14
MAX SPD 5	13
-1 DEFL	12
MAX SPD 4	11
-2 DEFL	10
MAX SPD 3	9
-3 DEFL	8
MAX SPD 2	7
-1 DISR	6
-4 DEFL	5
MAX SPD 1	4
-5 DEFL	3
-2 DISR	2
MAX SPD 0	1

CAPTAIN'S STRAT/TAC. SKILL: _____

CREW EFFICIENCY RATING= _____

DEFLECTORS DMGD

FWD	STBD FWD	PORT FWD
AFT	STBD AFT	PORT AFT

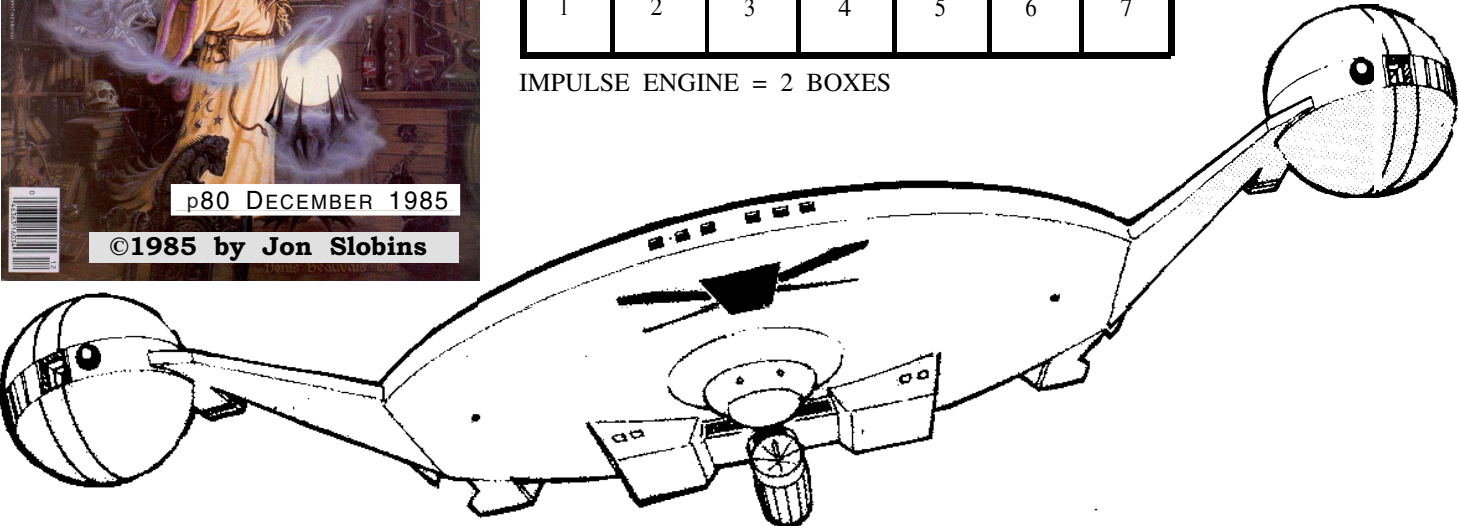
DISR DAMAGED

1	2
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SUPERSTRUCTURE STRESS/DAMAGE

1	2	3	4	5	6	7
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IMPULSE ENGINE = 2 BOXES



THOLIAN SPINNER CLASS

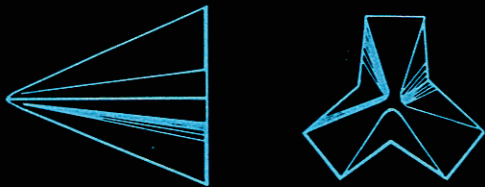
The Tholian Spinner has two energy projectors (up to 6 pts each) with a bonus of 2 pts to 4 hexes, and 1 point from 5-8. Both fire fwd and to each side. The engines produce 30 points of power (2 imp, 28 warp). It takes 3 points to produce 1 maneuver point. Shields may have up to 10 points in them.

The unique feature of the Spinner is the web generator. This device enables the ship to surround an immobile object with a "spider web" of energy, thus capturing it. The reason the object must be immobile is that a web takes a long time to generate, about 180 minutes for 1 ship. Two tholian ships can do the job in half the time (90 minutes). More ships will, of course, cut the time proportionately. Once completed, nothing can break out of it (*The Tholian Web* episode). The ship's other weaponry is capable of delivering a good solid punch, so watch out!

Tholian Spinner Class

CREW
Crew unknown

SHIP DATA
Weight (empty) 25,000 Metric tons
Standard Range 4 Years at LYV
Max Safe Cruise Speed WF 8
Emergency Speed WF 10
Weaponry 2 energy projectors
web generator
Length 75 m
Diameter 67 m



ORION BLOCKADE RUNNER

A pirate ship, built for speed, fast guns, and little defense. Its speed *is* its defense. The ship has 6 disruptors (of Klingon design), each capable of having 4 points put into them. A bonus of 1 pt is given under a 9 hex range. 2 discr. fire fwd, 1 each stbd and port, and 2 aft.

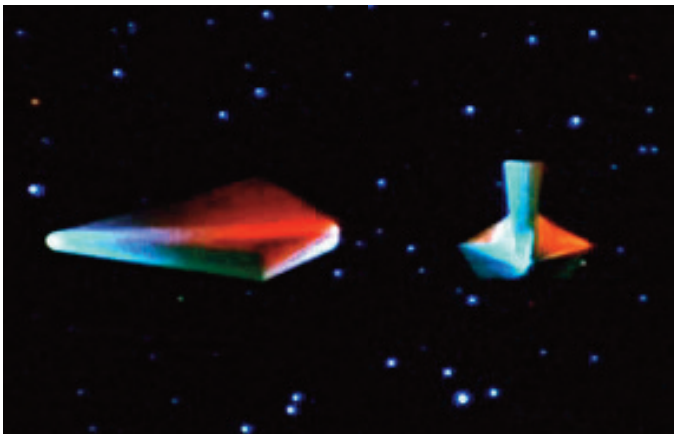
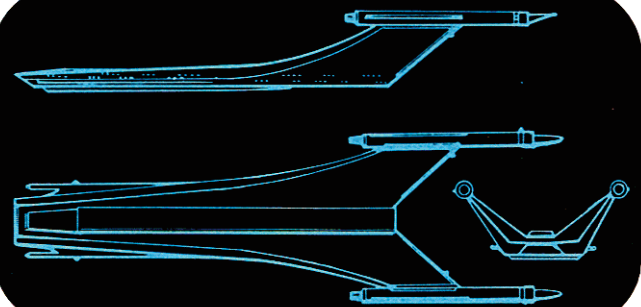
The shields each can have up to 6 points in them. The ship has 3 impulse factors and 2 warp engines producing 15 points of power each. It takes 3 power points to produce 1 maneuvering point. The ship, although small, has 16 superstructure points because it has been reinforced throughout.

Orion Blockade Runner

CREW
Crew (TOTAL) - 23

SHIP DATA
Weight (empty) 20,000 Metric tons
Standard Range 6 Years at LYV
Max Safe Cruise Speed WF 8
Emergency Speed WF 10
Weaponry 6 Disruptors
Length 100 m
Breadth 33 m
Height 32 m

Example Only, the Orions have no standard classes.

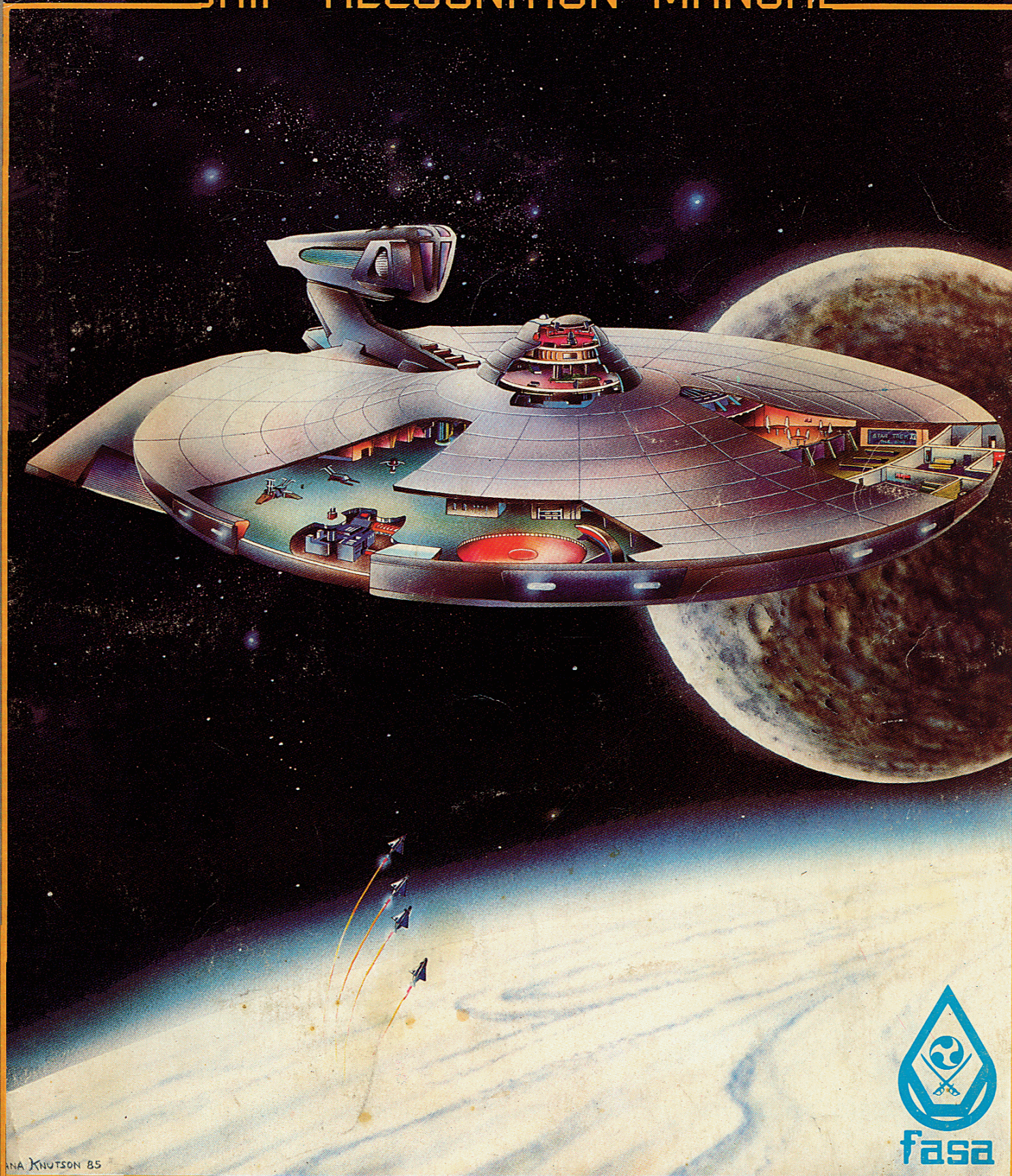


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FEDERATION

SHIP RECOGNITION MANUAL



COMBAT VESSELS

Assault Ships

<i>Makin</i>	3
<i>Continent</i>	3

Battleships

<i>Excelsior</i>	4
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Corvettes

<i>Scorpio</i>	5
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Cruisers

<i>Andor</i>	6
<i>Anton</i>	7
<i>Constitution</i>	8
<i>Enterprise</i>	10
<i>Reliant</i>	12
<i>Brenton</i>	14
<i>Durrett</i>	14

Cutters

<i>Epsilon</i>	15
<i>Solar</i>	15

Destroyers

<i>Baker</i>	16
<i>Wilkerson</i>	17
<i>Larson</i>	18
<i>Lenthal</i>	20
<i>Thufir</i>	20

Escort

<i>Genser</i>	21
<i>Griffon</i>	22
<i>Remora</i>	22

Frigate

<i>Northampton</i>	23
<i>Chandley</i>	24
<i>Loknar</i>	26
<i>Babcock</i>	28
<i>Kiev</i>	28

Monitors

<i>Fenlon</i>	29
---------------	----

Scouts

<i>Nelson</i>	30
<i>Bader</i>	31
<i>Keith</i>	32
<i>Ranger</i>	32

SUPPORT VESSELS

Transports

<i>Cochrane</i>	33
<i>Kethkin</i>	34
<i>MoKal</i>	35

Freighters

<i>Aakenn</i>	36
<i>Liberty</i>	37

Warpshuttles

<i>Greyhound</i>	38
<i>Pulsar</i>	38

REPAIR VESSELS AND FACILITIES

Tenders

<i>Derf</i>	39
<i>Cle Dan</i>	40

Repair Facilities

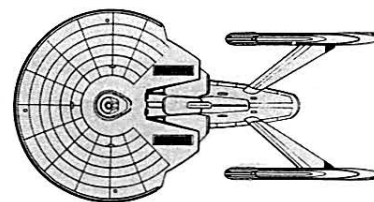
<i>Pearl</i>	41
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Defense Outposts

<i>Alamo</i>	42
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Makin Class VII Assault Ship

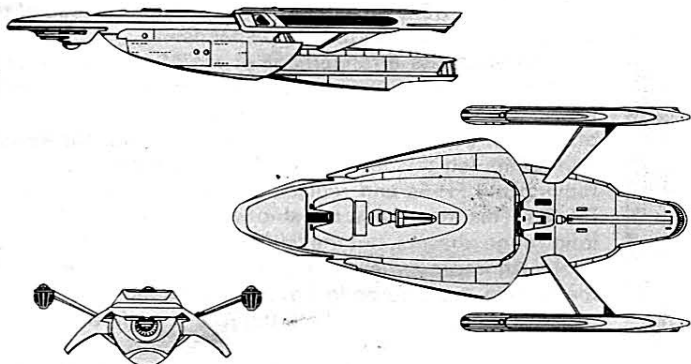
Construction Data:	
Model Numbers —	MK II
Date Entering Service —	2/1712
Number Constructed —	68
Hull Data:	
Superstructure Points —	11
Damage Chart —	C
Size	
Length —	180 m
Width —	95 m
Height —	35 m
Weight —	102,200 mt
Cargo	
Cargo Units —	600 SCU
Cargo Capacity —	30,000 mt
Landing Capability —	None
Equipment Data:	
Control Computer Type —	M-2
Transporters —	
standard 6 person	4
combat 20 person	6
emergency 22 person	2
cargo - small	4
large	2
Other Data:	
Crew —	38
Troops —	1,800
Shuttlecraft —	2
Engines And Power Data:	
Total Power Units Available —	20
Movement Point Ratio —	3/1
Warp Engine Type —	FWE-1
Number —	2
Power Units Available —	8
Stress Charts —	G/K
Maximum Safe Cruising Speed —	Warp 7
Emergency Speed —	Warp 9
Impulse Engine Type —	FIB-2
Power Units Available —	4
Weapons And Firing Data:	
Beam Weapon Type —	FH-2
Number —	4
Firing Arcs —	2Up, 2Ds
Firing Chart —	H
Maximum Power —	3
Damage Modifiers —	(1 - 10)
Shields Data:	
Deflector Shield Type —	FSD
Shield Point Ratio —	1/2
Maximum Shield Power —	7
Combat Efficiency:	
D —	44.7
WDF —	5.2



Notes:

The *Makin* Class assault ship can beam down its complement of 1800 marines, 9 heavy tanks and 32 light support vehicles in 25 minutes, slightly less rapidly than the *Continent* Class vessel.

The *Makin* is produced at the Tellar and Salazaar ship-yards, with a combined annual production rate of 14 per year. Of the 68 *Makin* Class ships built, 64 remain in active service, 1 is used by Star Fleet Training Command, 1 has been destroyed, and 1 has been scrapped.



Notes:

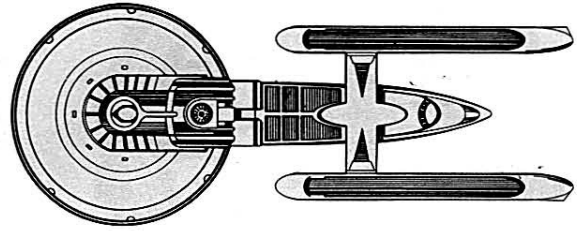
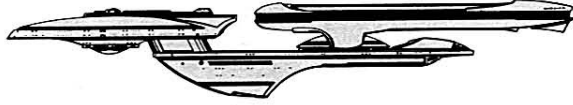
A typical *Continent* Class assault ship can beam down its contingent of 3200 marines, 16 heavy tanks, and 50 light support vehicles in 30 minutes, insuring fast response when arriving at a planetary trouble-spot.

The *Continent* is produced at Sol II at a rate of 12 per year. Of the 60 *Continent* Class ships built, 58 remain in active service, 1 is used by Star Fleet Training Command, and 1 has been scrapped.

Continent Class IX Assault Ship

Construction Data:	
Model Numbers —	MK I
Date Entering Service —	2/1801
Number Constructed —	60
Hull Data:	
Superstructure Points —	15
Damage Chart —	C
Size	
Length —	245 m
Width —	175 m
Height —	45 m
Weight —	129,900 mt
Cargo	
Cargo Units —	1,000 SCU
Cargo Capacity —	50,000 mt
Landing Capability —	None
Equipment Data:	
Control Computer Type —	M-3
Transporters —	
standard 6 person	6
combat 20 person	8
emergency 22 person	4
cargo - small	6
large	2
Other Data:	
Crew —	62
Troops —	3,200
Shuttlecraft —	6
Engines And Power Data:	
Total Power Units Available —	40
Movement Point Ratio —	3/1
Warp Engine Type —	FWD-2
Number —	2
Power Units Available —	18
Stress Charts —	M/G
Maximum Safe Cruising Speed —	Warp 5
Emergency Speed —	Warp 7
Impulse Engine Type —	FID-2
Power Units Available —	4
Weapons And Firing Data:	
Beam Weapon Type —	FH-2
Number —	6
Firing Arcs —	2Up, 2Ds
Firing Chart —	H
Maximum Power —	3
Shields Data:	
Deflector Shield Type —	FSD
Shield Point Ratio —	1/2
Maximum Shield Power —	6
Damage Modifiers —	(1 - 10)
Combat Efficiency:	
D —	68.5
WDF —	7.8

Excelsior Class XIII-XIV Battleship



Construction Data:

Model Numbers —	MK I	MK II
Date Entering Service —	2/2210	2/2303
Number Constructed —	1	1

Hull Data:

Superstructure Points —	38	42
Damage Chart —	C	C
Size		
Length —	467 m	467 m
Width —	186 m	186 m
Height —	78 m	78 m
Weight —	239,930 mt	243,610

Cargo

Cargo Units —	550 SCU	550 SCU
Cargo Capacity —	27,500 mt	27,500 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	M-8	M-8
Transporters —		
standard 6-person	6	6
emergency 22-person	6	6
cargo	3	3

Other Data:

Crew —	810	802
Passengers —	40	40
Shuttlecraft —	20	20

Engines And Power Data:

Total Power Units Available —	108	116
Movement Point Ratio —	6/1	6/1
Warp Engine Type —	FTWA	FTWA
Number —	2	2
Power Units Available —	38	38
Stress Charts —	D/F	D/F
Maximum Safe Cruising Speed —	Warp 12	Warp 12
Emergency Speed —	Warp 14	Warp 14
Impulse Engine Type —	FIG-2	FIG-3
Power Units Available —	32	40

Weapons And Firing Data:

Beam Weapon Type —	FH-11	FH-11
Number —	8 in 4 banks	10 in 5 banks
Firing Arcs —	2p, 2f, 2s, 2a	2f/p, 2f, 2f/s, 2p/a, 2s/a
Firing Chart —	Y	Y
Maximum Power —	10	10
Damage Modifiers —		
+3	(1 - 10)	(1 - 10)
+2	(11 - 17)	(11 - 17)
+1	(18 - 24)	(18 - 24)

Beam Weapon Type —

Number —	8 in 4 banks
Firing Arcs —	4p, 4s
Firing Chart —	R
Maximum Power —	4
Damage Modifiers —	
+2	(1 - 8)
+1	(9 - 16)

Missile Weapon Type —

Number —	4	6
Firing Arcs —	2f, 2a	1f, 2f/p, 2f/s, 1a
Firing Chart —	S	S
Power To Arm —	1	1
Damage —	20	20

Shields Data:

Deflector Shield Type —	FSS	FSS
Shield Point Ratio —	1/4	1/4
Maximum Shield Power —	20	20

Combat Efficiency:

D —	184.3	198
WDF —	160.4	182

Notes:

On Stardate 2/2210, the first of the new battleships, the *USS Excelsior*, was commissioned. This vessel is the newest in Star Fleet, and it incorporates many experimental operating systems. Since that time, Star Fleet has announced that another Mk I has been built, the *USS Proxima*, which is expected to finish its trials sometime in early 2/2400, and will be commissioned immediately thereafter.

Star Fleet Command has contracted for two Mk II versions to be built. The first of those, the *USS Columbia*, will be completed and ready for trials in early 2/2400 while the second, the *USS Galacta*, is expected to begin its trials sometime in the latter part of the year.

All the battleships are being constructed at the Sol III and Sol IV shipyards.

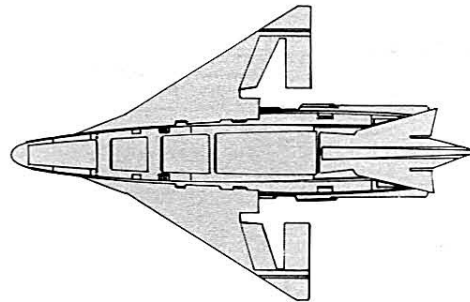
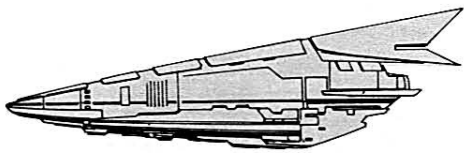
Technical data regarding the TransWarp engines used on these ships is classified and is not available for publication at this time. These engines operate by capturing the warp envelope in a transporter field and beaming it ahead of the ship to attain the reported warp speeds.

The weapons arrangement of the Mk I consists of 16 phasers and 4 photon torpedoes. Mounting 8 FH-11s and 8 FH-5s, the Mk Is originally were designed to cover all fields of fire with both long- and short-range phasers. The evaluation teams felt this arrangement could be improved by removing the FH-5s and replacing them with two additional FH-11s. This meant that the ship would carry only 10 of the long-range phasers, but the fields of fire overlap more effectively. An improvement in torpedo launcher technology allowed two more torpedo bays to be added. The torpedo tubes of the Mk I bear only to the fore and aft, but those of the Mk II are arranged to cover all firing arcs.

The shield system of the *Excelsior* Class vessels is reportedly an improved version of the quadri-transducer that delivers more deflector power. Like the engines, the technical data regarding the shield system is classified.

The *Excelsior* has been called "The Great Experiment" by many in influential circles. These ships are the newest of any in Star Fleet and incorporate experimental technology in most of the components required to operate a warship. With so many new systems aboard these vessels, the process of testing them has been slow. Prior to being installed, each component was tested and re-tested until it met standards. Nevertheless, when the *USS Excelsior* was taken out for trials, the evaluation teams were constantly faced with primary system malfunctions that would not allow any of the secondary or back-up systems to be tested. This caused the evaluators to deal with these new components on a one-at-a-time basis, and thus creating time delays in the commissioning of the class.

Scorpio Class II Corvette



Construction Data:

Model Numbers —	MK I
Date Entering Service —	2/2206
Number Constructed —	192

Hull Data:

Superstructure Points —	3
Damage Chart —	C
Size	
Length —	22 m
Width —	7 m
Height —	7 m
Weight —	7,840 mt

Cargo

Cargo Units —	1 SCU
Cargo Capacity —	50 mt
Landing Capability —	Yes

Equipment Data:

Control Computer Type —	L-13
Transporters —	
standard 6-person	1

Other Data:

Crew —	4
--------	---

Engines And Power Data:

Total Power Units Available —	7
Movement Point Ratio —	1/3
Warp Engine Type —	FWA-1
Number —	1
Power Units Available —	6
Stress Charts —	F/G
Maximum Safe Cruising Speed —	Warp 7
Emergency Speed —	Warp 9
Impulse Engine Type —	FIA-1
Power Units Available —	1

Weapons And Firing Data:

Beam Weapon Type —	FH-1
Number —	2 in 1 bank
Firing Arcs —	1/p/s
Firing Chart —	F
Maximum Power —	2
Missile Weapon Type —	FP-3
Number —	1
Firing Arcs —	f
Firing Chart —	D
Power To Arm —	1
Damage —	6

Shields Data:

Deflector Shield Type —	FSB
Shield Point Ratio —	1/2
Maximum Shield Power —	11

Combat Efficiency:

D —	81.2
WDF —	2.2

Notes:

The *Scorpio* Class corvettes have been commissioned to supplement Star Fleet's monitors, most of which are restricted to in-system or near-base patrols because of their sub-light engines. The *Scorpio* Class is lightweight and warp-capable, thus extending the defensive range of the bases or systems that require protection. These small ships are expected to improve the overall defensive posture of the UFP by allowing capital ships to operate for longer periods in sensitive areas.

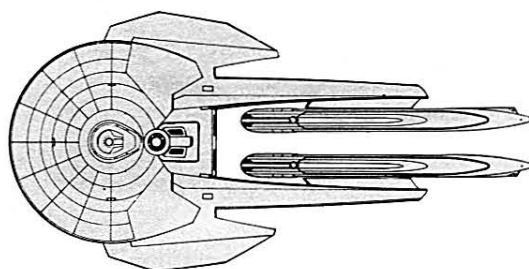
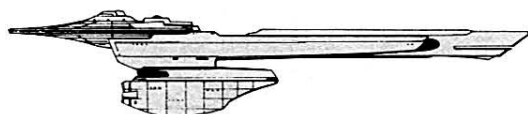
The corvettes are organized into groups consisting of 12 ships operating in 3 flights of 4 ships each. At the present time, there are 15 operational groups with plans for an additional 45. The operational groups are assigned as follows: The 1st, 2nd and 5th Pursuit Groups at Starbase 10; the 3rd, 6th and 7th Pursuit Groups at Starbase 12; the 4th, 8th, and 9th Pursuit Groups at Starbase 20; the 1st Andorian, 10th, and 11th Pursuit Groups at Starbase 27; the 2nd Andorian, and 12th Pursuit Groups at Starbase 15; and the 13th Pursuit Group at Starbase 14.

Though the original design for the *Scorpio* came from Andorian contractors, construction contracts were awarded to the shipyards at Morena and Salazaar, the latter being an Andorian-operated facility. Like so many Andorian designs, these vessels are made to close quickly with their enemies and deal crippling or fatal blows. The highly efficient FWA-1 warp engines allow the corvettes to rapidly surround an enemy vessel, causing it to divert power to an all-around defense, and therefore, weakening its offensive capability.

These ships carry only two FH-1 phasers and one FP-3 photon torpedo, but they are considered to have sufficient offensive power to deter pirates, smugglers, and small enemy warships from operating in their patrol areas.

The Morena and Salazaar shipyards are currently producing approximately 180 *Scorpio* Class corvettes per year. Of the 192 ships built, 180 remain in active service, and 12 are assigned to Star Fleet Training Command.

Andor Class IX Cruiser



Construction Data:

Model Numbers —	MK II
Date Entering Service —	2/1806
Number Constructed —	140

Hull Data:

Superstructure Points —	22
Damage Chart —	C
Size	
Length —	260 m
Width —	130 m
Height —	60 m
Weight —	121,600 mt

Cargo

Cargo Units —	300 SCU
Cargo Capacity —	15,000 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	M-3
Transporters —	
standard 6-person	6
emergency 22-person	3
cargo - small	2
large	1

Other Data:

Crew —	240
Passengers —	40
Shuttlecraft —	6

Engines And Power Data:

Total Power Units Available —	42
Movement Point Ratio —	3/1
Warp Engine Type —	FWE-2
Number —	2
Power Units Available —	13
Stress Charts —	G/K
Maximum Safe Cruising Speed —	Warp 7
Emergency Speed —	Warp 9
Impulse Engine Type —	FIF-2
Power Units Available —	16

Weapons And Firing Data:

Beam Weapon Type —	FH-3
Number —	2 in 1 bank
Firing Arcs —	2f
Firing Chart —	T
Maximum Power —	8
Damage Modifiers —	
+3	(1 - 5)
+2	(6 - 12)
+1	(13 - 18)
Missile Weapon Type —	FP-7
Number —	8
Firing Arcs —	1p, 4f, 1s, 2a
Firing Chart —	R
Power To Arm —	1
Damage —	8

Shields Data:

Deflector Shield Type —	FSL
Shield Point Ratio —	1/3
Maximum Shield Power —	15

Combat Efficiency:

D —	112.5
WDF —	51.4



Notes:

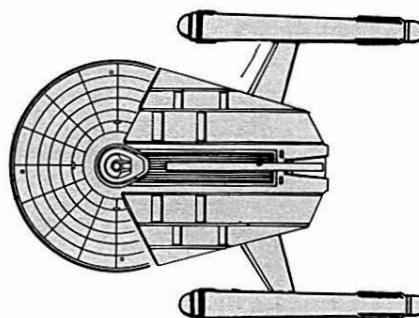
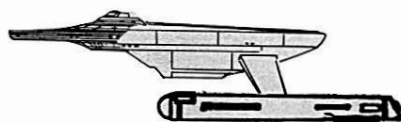
The *Andor* Class is the only operational missile cruiser in Star Fleet. These unique vessels have gained the respect and admiration of their crews because of their handling characteristics and offensive capabilities. The overall design came from Andorian design teams contracted to create a cruiser with photon torpedoes as its main weapons. These ships have so captured the heart and spirit of the Andorians that the majority are crewed solely by them. All have been named for Andorian military leaders. The *Andor* Class forms the core of all squadrons in the famed 'Blue Fleet', and is an integral part of front line forces for Star Fleet.

Like the *Thufir* Class destroyer, the warp engines are mounted close together and center aft of the main hull. This affords the engines more protection during battle because of the partial cover provided by the secondary hull. As with all Star Fleet vessels, the engines can be jettisoned in case of an overload in the matter/anti-matter chamber.

The most unusual feature of this vessel is the weapons array. Mounting two FH-13 phasers and 8 FP-7 photon torpedoes, it well deserves its informal name of 'missile boat'. *Andor* Class vessels are capable of engaging the enemy at 180,000 km with their phasers, and 16,000 km with their torpedoes. Due to the number of torpedoes and the ranges at which they are most effective, these vessels normally operate in combat at 120,000 km. The *Andor* Class has been encountered and engaged by both Romulan and Klingon forces, which were taken by surprise when the Star Fleet vessel fired a spread of torpedoes whose number was unexpected. In each case, the enemy withdrew from the field of battle before the cruiser could be fully put to the test.

The *Andor* Class cruiser is manufactured at the Andor and Salazaar shipyards at a combined rate of 28 per year. Of the 140 *Andors* built, 138 remain in active service. Two have been scrapped after a high-speed collision that resulted in irreparable damage.

Anton Class X Cruiser



Construction Data:

Model Numbers —	MK I	MK II	MK IV
Date Entering Service —	1/8704-2/1002	1/9702-2/1410	2/1210
Number Constructed —	68	56	12
Hull Data:			
Superstructure Points —	16	18	18
Damage Chart —	C	C	C
Size			
Length —	224 m	226 m	226 m
Width —	145 m	145 m	145 m
Height —	51 m	51 m	51 m
Weight —	147,800 mt	150,000 mt	149,200 mt
Cargo			
Cargo Units —	300 SCU	300 SCU	300 SCU
Cargo Capacity —	15,000 mt	15,000 mt	15,000 mt
Landing Capability —	None	None	None

Equipment Data:

Control Computer Type —	M-3	M-4	M-4
Transporters —			
standard 6-person	4	4	4
emergency 22-person	2	3	3
cargo	2	2	2

Other Data:

Crew —	290	295	306
Passengers —	40	40	40
Shuttlecraft —	4	4	4

Engines And Power Data:

Total Power Units Available —	35	38	46
Movement Point Ratio —	3/1	3/1	4/1
Warp Engine Type —	FWC-1	FWC-1	FWC-2
Number —	2	2	2
Power Units Available —	16	16	20
Stress Charts —	O/M	O/M	N/M
Maximum Safe Cruising Speed —	Warp 7	Warp 7	Warp 6
Emergency Speed —	Warp 9	Warp 9	Warp 8
Impulse Engine Type —	FIC-2	FIC-3	FIC-3
Power Units Available —	3	6	6

Weapons And Firing Data:

Beam Weapon Type —	FL-5	FH-3	FH-10
Number —	4 in 2 banks	4 in 2 banks	4 in 2 banks
Firing Arcs —	21/p, 21/s	21/p, 21/s	21/p, 21/s
Firing Chart —	H	W	W
Maximum Power —	2	5	7
Damage Modifiers —			
+3		(1 - 10)	(1 - 10)
+2	(1 - 4)	(11 - 17)	(11 - 17)
+1	(5 - 7)	(18 - 20)	(18 - 20)

Shields Data:

Deflector Shield Type —	FSG	FSH	FSH
Shield Point Ratio —	1/1	1/2	1/2
Maximum Shield Power —	9	11	11

Combat Efficiency:

D —	52.9	78.7	76.7
WDF —	4.4	23.2	38.8



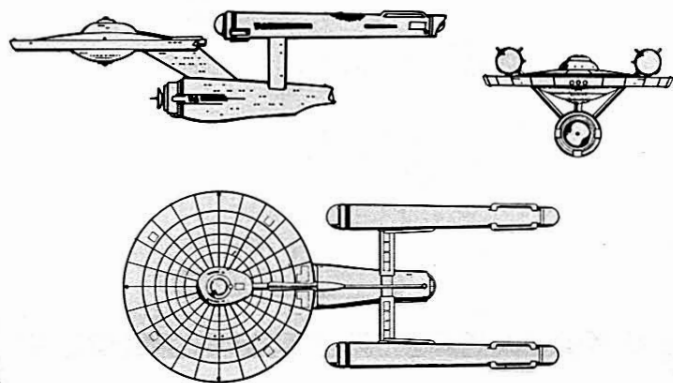
Notes:

First commissioned on Stardate 1/8704 during the period known as "The Great Awakening", the *Anton* Class cruiser was in the forefront of that expansion effort. At the time, Star Fleet itself was expanding in response to the changing and expanding economic and political goals of the UFP. To meet the demand of a larger navy, the Military Appropriations Committee authorized the development and testing of hundreds of vessel types, the *Anton* among them.

During this same period, the concepts of ship design were rapidly evolving and becoming more sophisticated, and the technology to build and operate starships was going through an industrial revolution. Advances in all facets of the technology required to construct, maintain, and operate a starship was changing so rapidly that some ships were obsolete before they were completed. The *Anton* design was changed no fewer than 12 times before the tooling and machining was begun. Even so, the ship required some alterations during its trials and was to see many more changes after its commissioning, the last of which was the refitting to the *Reliant* Class.

When these new cruisers were launched, they were only capable of performing 3-year missions with re-supply at 1-year intervals. This made their dual-purpose role of research cruiser harder to perform. With the great distances that had to be travelled, they could not get more than 6-months travel time from a friendly outpost. This meant they could only advance as fast as the frontier was expanding.

Constitution Class XI Cruiser



Construction Data:

Model Numbers —	MK I	MK II	MK III
Date Entering Service —	1/8801-2/1210	2/0206	2/1202
Number Constructed —	13	28	6
Hull Data:			
Superstructure Points —	20	20	22
Damage Chart —	C	C	C
Size			
Length —	290 m	290 m	295 m
Width —	127 m	127 m	127 m
Height —	73 m	73 m	73 m
Weight —	162,425 mt	164,600 mt	167,900 mt
Cargo			
Cargo Units —	380 SCU	390 SCU	390 SCU
Cargo Capacity —	19,000 mt	19,500 mt	19,500 mt
Landing Capability —	None	None	None
Equipment Data:			
Control Computer Type —	M-3	M-4	M-4
Transporters —			
standard 6-person	4	4	4
emergency 22-person	5	5	5
cargo	2	2	2
Other Data:			
Crew —	410	430	430
Passengers —	80	60	60
Shuttlecraft —	10	12	12
Engines And Power Data:			
Total Power Units Available —	36	44	48
Movement Point Ratio —	4/1	4/1	4/1
Warp Engine Type —	FWC-1	FWF-1	FWF-1
Number —	2	2	2
Power Units Available —	16	20	20
Stress Charts —	O/M	G/L	G/L
Maximum Safe Cruising Speed —	Warp 6	Warp 6	Warp 6
Emergency Speed —	Warp 8	Warp 8	Warp 8
Impulse Engine Type —	FIB-2	FID-2	FIE-2
Power Units Available —	4	4	8
Weapons And Firing Data:			
Beam Weapon Type —	FL-6	FH-3	FH-3
Number —	6 in 3 banks	6 in 3 banks	6 in 3 banks
Firing Arcs —	2/fp, 2l, 2/s	2/fp, 2l, 2/s	2/fp, 2l, 2/s
Firing Chart —	H	W	W
Maximum Power —	3	5	5
Damage Modifiers —			
+3		(1 - 10)	(1 - 10)
+2	(1 - 4)	(11 - 17)	(11 - 17)
+1	(5 - 7)	(18 - 20)	(18 - 20)
Missile Weapon Type —	FAC-3	FP-1	FP-5
Number —	2	2	2
Firing Arcs —	f	f	f
Firing Chart —	H	L	R
Power To Arm —	4	1	1
Damage —	12	10	16
Shields Data:			
Deflector Shield Type —	FSG	FSN	FSO
Shield Point Ratio —	1/1	1/2	1/3
Maximum Shield Power —	9	16	16
Combat Efficiency:			
D —	64.6	83.6	97.5
WDF —	12.4	43.6	53.8



Notes:

The *Constitution* Class cruisers are the most renowned vessels of their time. Serving as both a research vessel and a cruiser, these ships have performed their duties to perfection for the last 35 years. The *Constitution* Class ships were an integral part of the buildup during "The Great Awakening," from the outset the most versatile of all ships built for the expansion efforts.

The original construction contract called for 13 vessels to be built that would serve as cruisers, have complete research facilities, and be capable of operating on 5-year research and exploration missions. On Stardate 1/8801, the first of these vessels, the *USS Constitution*, was commissioned, followed by one more each month for five months. As soon as these vessels were completed and commissioned, they were sent on 2-year shakedown cruises. Over the next five years, the remaining 7 cruisers were built. The construction program came to a halt with the commissioning of the *USS Defiant*.

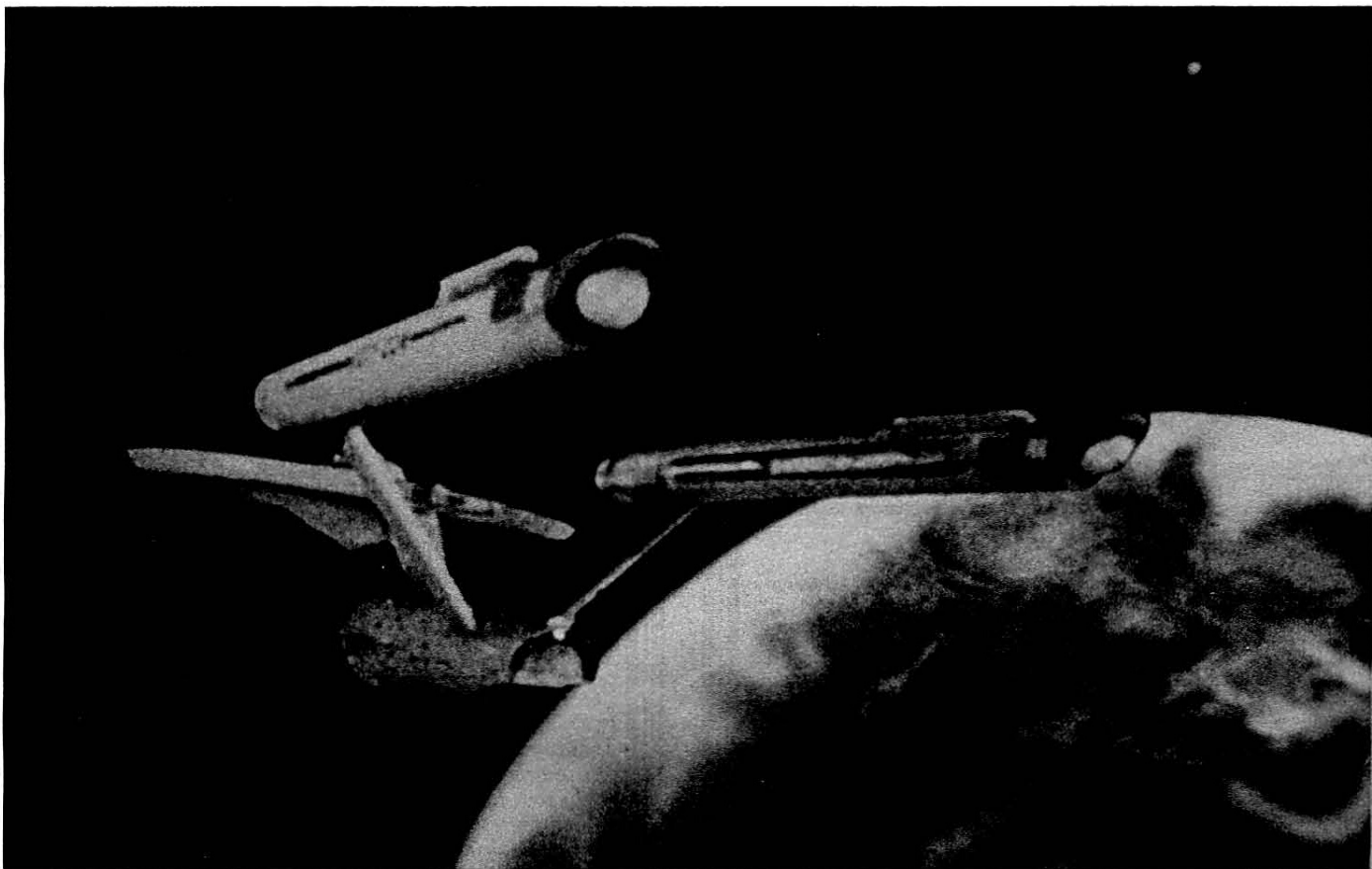
When the Four Years War broke out, Star Fleet decided to produce warships instead of the dual-purpose cruisers that devoted large areas of their space to research and laboratories. Even though the *Constitution* Class was not put into production for the war effort, four of the ships saw action. Each distinguished itself in battle time and again, soon gaining the nickname "The Queens Of Star Fleet". After-action reports continued to show the combat ability of this ship to be superior to any other ship in the fleets, and so the decision to produce more of them was finally issued on Stardate 1/9611.

The ship that would be produced was the Mk II version, mounting the new phaser weaponry and newer, more powerful shields. Because of these modifications to the original design, construction did not begin until Stardate 1/9709, and the first ship did not come off the line until 1/9901, 7 months after the end of the war. Star Fleet decided to continue the production of the *Constitution* Class cruisers and expanded the total number to 42 vessels.

On Stardate 2/0104, the FWF-1 warp drive engine was brought into the inventory, and all *Constitution* Class ships were recalled to be refit as Mk IIIs. By Stardate 2/0510, the refitting was complete and the *Constitution* Class remained the most advanced starship of its time. One Mk III, the *USS Ark Royal*, still serves in Star Fleet, exploring the rimward areas and acting as ongoing proof of this class' successful record.

After the first successful test firing of the FP-5 photon torpedo, Star Fleet ordered that 12 *Constitution* Class ships be modified to fire it. On Stardate 2/1202, the *USS Discovery*, *USS Saratoga*, *USS El Dorado*, and *USS Kitty Hawk* were sent into service as Mk IVs, mounting not only the new torpedo system, but also more powerful impulse engine and shield generators.

The Mk IV was the last version of the *Constitution* Class to be built, but not the last to use that particular hull style. The *Enterprise* Class cruiser was originally built from older *Constitution* hulls and retains its general appearance. *Constitution* Class ships were constructed at the Sol IV shipyards.



Disposition:

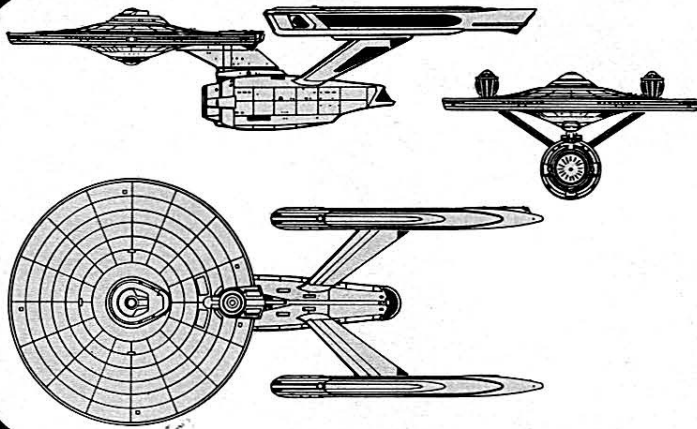
The following list of *Constitution* Class cruisers shows their hull numbers, name, model designation, date entering service, and current disposition. The disposition is represented by the letter codes given below and is followed by the date of occurrence, if known.

- I Inactive Reserve fleet
- D Destroyed by hostile action or natural disaster
- Sc Scrapped
- L Lost, whereabouts unknown
- R3 Refit to Mk III
- R4 Refit to Mk IV
- RE Refit to *Enterprise* Class
- * Original 13

NCC 1017*	Constellation	I	1/8803, R3 2/0211, D 2/0802
NCC 1373*	Republic	I	1/8805, R3 2/0309, L 2/0801
NCC 1631*	Intrepid	I	1/8804, R3 2/0206, D 2/0812
NCC 1647*	Farragut	I	1/8806, R3 2/0501, D 2/0904
NCC 1664*	Excalibur	I	1/8901, R3 2/0402, D 2/0905
NCC 1672*	Exeter	I	1/9003, R3 2/0307, Sc 2/1012
NCC 1700*	Constitution	I	1/8801, R3 2/0206, I 2/1205
NCC 1701*	Enterprise	I	1/8802, R3 2/0203, RE 2/1704, D 2/2206
NCC 1702*	Potemkin	I	1/9206, R3 2/0410, D 2/1201
NCC 1703*	Hood	I	1/9307, R3 2/0402, Sc 2/1201
NCC 1704	Bismark	II	1/9901, R3 2/0510, RE 2/1709
NCC 1705	Yamato	II	1/9903, R3 2/0311, RE 2/1711
NCC 1709*	Lexington	I	1/8912, R3 2/0304, L 2/0702
NCC 1710	Kongo	II	1/9909, R3 2/0406, D 2/1803

NCC 1715	Challenger	II	2/0008, R3 2/0508, RE 2/1707
NCC 1717*	Yorktown	I	1/9005, R3 2/0308, Sc 2/1102
NCC 1718	Valiant	II	2/0010, R3 2/0312, RE 2/1802
NCC 1719	Essex	II	2/0104, R3 2/0209, RE 2/1803
NCC 1720	Saratoga	II	2/0105, R3 2/0410, R4 2/1202, I 2/2006
NCC 1724	El Dorado	II	2/0109, R3 2/0212, R4 2/1202, I 2/2006
NCC 1725	Kent	II	2/0202, R3 2/0501, R4 2/1212
NCC 1727	Littorio	III	2/0912, R4 2/1308
NCC 1736	Ticonderoga	III	2/0308, Sc 2/2204
NCC 1738	Eagle	III	2/0405, Sc 2/2006
NCC 1742	Santissima Trinidad	III	2/0606, RE 2/1902
NCC 1744	Marseille	III	2/0410, RE 2/1902
NCC 1749	Langley	III	2/0503, R4 2/1308
NCC 1750	Richelieu	III	2/0702, R4 2/1303
NCC 1751	Forrestal	III	2/0702, R4 2/1205, Sc 2/2111
NCC 1754	Kitty Hawk	III	2/0801, R4 2/1202, D 2/2209
NCC 1759	Chikuma	III	2/0804, Sc 2/2301
NCC 1760	Victory	III	2/0805, L 2/1903
NCC 1764	Defiant	I	1/9311, R3 2/0303, D 2/0910
NCC 1765	Rivoli	III	2/0808, D 2/1510
NCC 1776	BonHomme Richard	III	2/0809, RE 2/1810
NCC 1777	Endeavor	III	2/0901, R4 2/1211
NCC 1778	Hornet	III	2/0901, R4 2/1306
NCC 1779	Akagi	III	2/0905, D 2/1709
NCC 1780	Kaga	III	2/0905, L 2/1709
NCC 1791	Ark Royal	III	2/1001
NCC 1792	Radetsky	III	2/1004, R4 2/1204, D 2/1906
NCC 1798	Discovery	III	2/1010, R4 2/1202

Enterprise Class XI Cruiser



Construction Data:

Model Numbers —	MK I	MK II	MK III
Date Entering Service —	2/1704	2/1910	2/2102
Number Constructed —	26	19	10

Hull Data:

Superstructure Points —	26	27	28
Damage Chart —	C	C	C
Size			
Length —	302 m	302 m	302 m
Width —	131 m	131 m	131 m
Height —	74 m	74 m	74 m
Weight —	160,275 mt	163,275 mt	171,008 mt

Cargo

Cargo Units —	450 SCU	450 SCU	450 SCU
Cargo Capacity —	22,500 mt	22,500 mt	22,500 mt
Landing Capability —	None	None	None

Equipment Data:

Control Computer Type —	M-6	M-6	M-6A
Transporters —			
standard 6-person	4	4	4
emergency 22-person cargo	4	4	4
	2	2	2

Other Data:

Crew —	412	416	416
Passengers —	60	60	60
Shuttlecraft —	12	12	12

Engines And Power Data:

Total Power Units Available —	60	64	68
Movement Point Ratio —	4/1	4/1	4/1
Warp Engine Type —	FWG-1	FWG-1	FWG-1
Number —	2	2	2
Power Units Available —	26	26	26
Stress Charts —	D/F	D/F	D/F
Maximum Safe Cruising Speed —	Warp 8	Warp 8	Warp 8
Emergency Speed —	Warp 10	Warp 10	Warp 10
Impulse Engine Type —	FIE-2	FIF-1	FIF-2
Power Units Available —	8	12	16

Weapons And Firing Data:

Beam Weapon Type —	FH-11	FH-11	FH-11
Number —	6 in 3 banks	6 in 3 banks	8 in 4 banks
Firing Arcs —	2f/p, 2f/s	2f/p, 2f/s	2f/p, 2f/s, 2a
Firing Chart —	Y	Y	Y
Maximum Power —	10	10	10
Damage Modifiers —			
+3	(1 - 10)	(1 - 10)	(1 - 10)
+2	(11 - 17)	(11 - 17)	(11 - 17)
+1	(18 - 24)	(18 - 24)	(18 - 24)
Missile Weapon Type —	FP-4	FP-4	FP-4
Number —	2	2	3
Firing Arcs —	f	f	2f, 1a
Firing Chart —	S	S	S
Power To Arm —	1	1	1
Damage —	20	20	20

Shields Data:

Deflector Shield Type —	FSP	FSP	FSP
Shield Point Ratio —	1/4	1/4	1/4
Maximum Shield Power —	16	16	16

Combat Efficiency:

D —	145.2	152	162.8
WDF —	89.2	89.2	123.1



Notes:

On Stardate 2/1204, the *Constitution* Class cruiser *Enterprise* returned from its last 5-year mission, the only one of the original 13 remaining in service, all others having been lost or destroyed. She was publicly hailed as the Champion Of The Federation, and, on Stardate 2/1302, the vessel began a scheduled overhaul that would lead to one of the most interesting conversion/modifications in recent history. What began as a scheduled overhaul of a *Constitution* Class cruiser turned into the *Enterprise* Class cruiser.

While in drydock for upgrade to the Mk IV version of the *Constitution* Class, the Chief of Engineering, Commander Montgomery Scott, proposed that the vessel be fitted with FWG-1 warp engines, which would give the ship 33% more operating power and would increase its range. The proposal was endorsed, and the vessel was fitted with the newer engines. Once the engines were tested, it was found that the mounts would not withstand the forces exerted by the higher speeds, and so new pylon assemblies were required. A new lower or secondary hull assembly was designed that not only supported the new engines but also incorporated several major changes in appearance.

The secondary hull was enlarged, giving room for larger shuttle bays, larger and more efficiently arranged engineering compartments and work stations, enlarged and improved research facilities, and an enclosed sensor array instead of the older-style extended dish. Furthermore, the photon torpedo bay was placed in the upper forward area. These changes also meant that the primary hull had to be replaced with a larger dish able to house the new fire-control, life-support, and computer systems. The vessel's final appearance was so drastically changed that Star Fleet Command decided to make it a new class entirely.

The *Enterprise* Class ships are the most powerful in known space. Since their introduction on Stardate 2/1704, they have been the UFP's most effective deterrent to aggression. Their combat abilities are equalled by their capability to perform extensive research duties, and this makes them the most versatile of all vessels in service. Despite the dual capabilities, however, the class is being used more and more in its combat role due to the increased border activities of both the Klingon and Romulan Empires.

Like many ships, the *Enterprise* Class has been modified. The first modification was made to house the FIF-1 impulse drive system, giving the Mk II 7% more operating power. The Mk III, likely to replace both the Mk I and II, mounts the FIF-2 impulse drive system, giving 15% more power than the Mk I and 6% more power than the Mk II. Also incorporated into this design is an additional bank of FH-11 phasers and an additional FP-4 torpedo bay, both systems firing aft, giving the class much needed protection there. These modifications have been ordered on several existing Mk Is and Mk IIs, and they may be required on all vessels of this class in the near future. Only two Mk Is are under construction; both are believed to be undergoing the modifications to Mk III.

The *Enterprise* Class cruisers are produced at the Sol III and Salazaar shipyards at a rate of 4 per year. The number under production varies and should only be used for reference.

Disposition

The following list of *Enterprise* Class cruisers shows their hull numbers, model designation, date entering service, and current disposition. The disposition is represented by the letter codes given below and is followed by the date of occurrence, if known. Ships with names that are immediately followed by // are successors to *Constitution* Class vessels listed as missing.

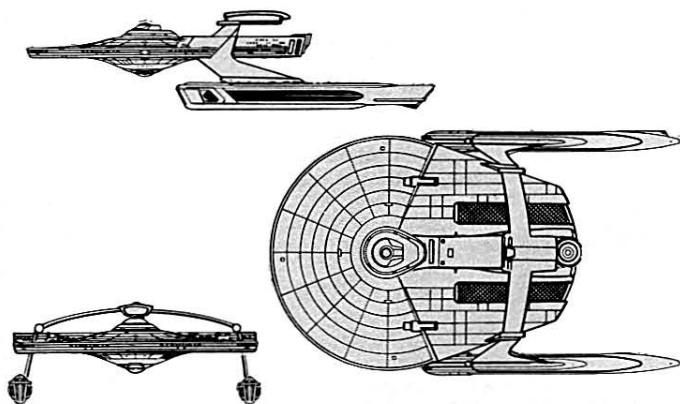
I Inactive/Reserve fleet
D Destroyed by hostile action or natural disaster
Sc Scrapped
L Lost, whereabouts unknown
RC Refit from *Constitution* Class
T Training Command vessel

NCC 1701	Enterprise	I	RC 2/1704, D 2/2206
NCC 1702	Potemkin	I	2/1704, I 2/2208
NCC 1703	Hood	I	2/1704
NCC 1704	Bismark	I	RC 2/1708
NCC 1705	Yamato	I	RC 2/1705, T 2/1906
NCC 1706	Constellation	I	2/1711
NCC 1707	Intrepid	I	2/1706
NCC 1708	Farragut	I	2/1802
NCC 1709	Lexington	I	2/1802
NCC 1710	Kongo	III	2/2102
NCC 1711	Excalibur	I	2/1808, Sc 2/2003
NCC 1712	Exeter	I	2/1805
NCC 1715	Challenger	I	RC 2/1707
NCC 1716	Zuiho	II	2/1912
NCC 1717	Yorktown	I	2/1712
NCC 1718	Valiant	I	RC 2/1802
NCC 1719	Essex	I	RC 2/1803
NCC 1720	Saratoga II	III	2/2109
NCC 1721	Kearsarge	III	2/2202
NCC 1724	El Dorado II	III	2/2111
NCC 1726	Graf Zeppelin	II	2/1910
NCC 1730	Soryu	II	2/2006
NCC 1731	Hiryu	II	2/2008

NCC 1732	Valley Forge	I	2/1903
NCC 1733	Oriskany	I	2/1906
NCC 1734	Wasp	I	2/1906
NCC 1735	Hancock	I	2/1910, D 2/2108
NCC 1736	Ticonderoga	III	Incomplete
NCC 1738	Eagle	II	2/2108
NCC 1740	King George V	II	2/2201
NCC 1741	Prince of Wales	II	2/2201
NCC 1742	Santissima Trinidad	II	RC 2/2002
NCC 1743	Franklin	II	2/2006
NCC 1744	Marseille	II	RC 2/2001
NCC 1745	Bunker Hill	III	2/2202
NCC 1751	Forrestal	I	2/2210
NCC 1752	Minsk	I	2/1904
NCC 1753	Republic II	I	2/1904
NCC 1754	Kitty Hawk	III	Incomplete
NCC 1759	Chikuma	III	Incomplete
NCC 1760	Victory II	II	2/2010
NCC 1764	Defiant	I	2/1712
NCC 1765	Rivoli	I	2/1809
NCC 1772	Scharnhorst	II	2/2003
NCC 1773	Gneisenau	II	2/2006
NCC 1774	Emperador	III	2/2109
NCC 1775	Kashima	II	2/2110
NCC 1776	BonHomme Richard	I	RC 2/1810
NCC 1779	Akagi	I	2/1903
NCC 1780	Kaga II	II	2/2008
NCC 1781	Freidland	II	2/2201
NCC 1782	Konigsberg	II	2/2106
NCC 1783	Ukrania	III	2/2206
NCC 1784	Clemenceau	II	2/2301
NCC 1785	Marcello	III	2/2210
NCC 1792	Radetsky	II	2/2104
NCC 1793	Fontana	III	2/2208
NCC 1794	Java	III	2/2212



Reliant Class XI Cruiser



Construction Data:

Model Numbers —	MK I	MK II	MK III
Date Entering Service —	2/1507	2/1802	2/2204
Number Constructed —	52	46	5

Hull Data:

Superstructure Points —	22	24	24
Damage Chart —	C	C	C
Size			
Length —	233 m	233 m	233 m
Width —	140 m	140 m	140 m
Height —	64 m	64 m	64 m
Weight —	165,800 mt	169,600 mt	161,600 mt

Cargo

Cargo Units —	400 SCU	400 SCU	400 SCU
Cargo Capacity —	20,000 mt	20,000 mt	20,000 mt
Landing Capability —	None	None	None

Equipment Data:

Control Computer Type —	M-4	M-4	M-4
Transporters —			
standard 6-person	4	4	4
emergency 22-person cargo	3	3	3
	2	2	2

Other Data:

Crew —	336	346	352
Passengers —	75	75	75
Shuttlecraft —	4	4	4

Engines And Power Data:

Total Power Units Available —	48	52	56
Movement Point Ratio —	4/1	4/1	4/1
Warp Engine Type —	FWF-1	FWF-1	FWG-2
Number —	2	2	2
Power Units Available —	20	20	22
Stress Charts —	G/L	G/L	H/K
Maximum Safe Cruising Speed —	Warp 6	Warp 6	Warp 8
Emergency Speed —	Warp 8	Warp 8	Warp 9
Impulse Engine Type —	FIE-2	FIF-1	FIF-1
Power Units Available —	8	12	12

Weapons And Firing Data:

Beam Weapon Type —	FH-10	FH-11	FH-11
Number —	4 in 2 banks	4 in 2 banks	4 in 2 banks
Firing Arcs —	2/lp, 2/l/s	2/lp, 2/l/s	2/lp, 2/l/s
Firing Chart —	W	Y	Y
Maximum Power —	7	10	10
Damage Modifiers —			
+3	(1 - 10)	(1 - 10)	(1 - 10)
+2	(11 - 17)	(11 - 17)	(11 - 17)
+1	(18 - 20)	(18 - 24)	(18 - 24)
Missile Weapon Type —	FP-4	FP-4	FP-4
Number —	2	2	2
Firing Arcs —	1f, 1a	1f, 1a	1f, 1a
Firing Chart —	S	S	S
Power To Arm —	1	1	1
Damage —	20	20	20

Shields Data:

Deflector Shield Type —	FSL	FSL	FSL
Shield Point Ratio —	1/3	1/3	1/3
Maximum Shield Power —	14	14	14

Combat Efficiency:

D —	105	110.8	113.8
WDF —	63.8	67.8	67.8



Notes:

The *Reliant* Class cruiser evolved from the *Anton* Class research cruiser in much the same manner as the *Enterprise* Class cruiser evolved from the *Constitution* Class. On Star-date 2/1410, the *USS Reliant*, an *Anton* Class research cruiser, was brought into the shipyards of Morena for a refit to the Mk IV. As the ship was being dismantled for an engine refit, Star Fleet Command decided to mount the FWF-1 and FIE-2 engine systems instead of the FWC-2 and FIC-3 systems normally used on the Mk IV. This change in both the warp and impulse drive systems created several exterior design changes that prompted Star Fleet to christen this a new class.

During this time, the *Reliant* was further fitted with the 'roll bar' weapons pod, which gave a better field of fire and allowed the addition of photon torpedoes. The *Anton* Class had suffered from lack of intense firepower during the Four Years War, in which 16 *Antons* were destroyed due to their inability to deliver massive blows to their targets. After the war, when public feeling was to disarm instead of rearming, no consideration was given to rearm research ships, but after the Klingon attempt to take Organia, public opinion changed and the problem of the undergunned *Anton* Class resurfaced. In considering the refit and upgrade to more firepower with the emerging *Reliant* Class, the problem of preserving the massive onboard research facilities prompted the 'roll bar' weapons pod. This pod contains the phaser banks mounted on the outer edges, and the fore and aft torpedoes mounted centrally. The major components of the fire control system are also located in the pod, thus giving additional room for personnel and work stations.

The *USS Reliant*, being the first of this type, was made the class vessel. It retained its original hull number, as have all converted models, but newly constructed ships have been given a different series of numbers. Once the decision was made, production of new ships and modifications of existing models was then ordered.

Since they entered service, *Reliant* Class vessels have undergone two changes. The first, upgrading to the Mk II, saw an improved impulse drive system and the changing of the phasers to the FH-11. The second and most recent change, refitting to the Mk III, includes a more powerful set of warp drive engines, which are actually lighter than several of the older styles still in use. All production of Mk I and II models will be halted with the completion of the ships that are already in production, and new *Reliants* will be of the Mk III type.

The *Reliant* Class cruisers are produced at the Morena, Sol IV, and Salazaar shipyards. The rate of production is currently 10 per year.

Disposition:

The following list of *Reliant* Class cruisers shows their hull numbers, name, model designation, date entering service, and current disposition. The disposition is represented by the letter codes given below and is followed by the date of occurrence, if known.

- D Destroyed by hostile action or natural disaster
- Sc Scrapped
- S Disarmed and sold to civil sector
- L Lost, whereabouts unknown
- R1 Refit from *Anton* Class to Mk I
- R2 Refit to Mk II
- R3 Refit to Mk III
- T Training Command vessel

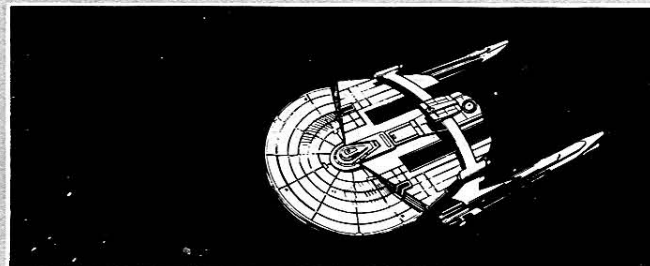
NCC 1863	<i>Repulse</i>	R1 2/1509
NCC 1864	<i>Reliant</i>	R1 2/1507, D 2/2206
NCC 1866	<i>Condor</i>	R1 2/1603
NCC 1869	<i>Gallant</i>	R2 2/1806, R3 2/2205
NCC 1870	<i>Renown</i>	R1 2/1603
NCC 1871	<i>Invincible</i>	R2 2/1904
NCC 1872	<i>Daring</i>	R1 2/1704, T 2/2110
NCC 1873	<i>Devastator</i>	R1 2/1609, R2 2/1907
NCC 1874	<i>Courage</i>	R2 2/1811
NCC 26226	<i>Formidable</i>	I 2/1507
NCC 26227	<i>Defender</i>	I 2/1507, R2 2/2007
NCC 26228	<i>Triumph</i>	I 2/1509, L 2/1706
NCC 26229	<i>Vengeance</i>	I 2/1509
NCC 26230	<i>Venerable</i>	I 2/1508
NCC 25231	<i>Ardent</i>	I 2/1512
NCC 26232	<i>Encounter</i>	I 2/1602, D 2/1902
NCC 26233	<i>Champion</i>	I 2/1604
NCC 26234	<i>Furious</i>	I 2/1604, R2 2/1905
NCC 26235	<i>Ramilles</i>	I 2/1605
NCC 26236	<i>Conqueror</i>	I 2/1605
NCC 26237	<i>Glorious</i>	I 2/1605
NCC 26238	<i>Terror</i>	I 2/1606, S 2/2210
NCC 26239	<i>Valorous</i>	I 2/1607
NCC 26240	<i>Terminator</i>	I 2/1609, R2 2/2101
NCC 26241	<i>Courageous</i>	I 2/1610, R2 2/1904
NCC 26242	<i>Vindicator</i>	I 2/1610
NCC 26243	<i>Redoubt</i>	I 2/1610
NCC 26244	<i>Guardian</i>	I 2/1611, R2 2/1909
NCC 26245	<i>Regulator</i>	I 2/1612, L 2/1712
NCC 26246	<i>Invicta</i>	I 2/1612
NCC 26247	<i>Kings Destroyer</i>	I 2/1701
NCC 26248	<i>Audacious</i>	I 2/1702, R2 2/2102
NCC 26249	<i>Daredevil</i>	I 2/1702
NCC 26250	<i>Striker</i>	I 2/1702
NCC 26251	<i>Enforcer</i>	I 2/1701, R2 2/1812
NCC 26252	<i>Rigorous</i>	I 2/1703
NCC 26253	<i>Blade of Tellar</i>	I 2/1704, R2 2/2003
NCC 26254	<i>Immortal</i>	I 2/1802
NCC 26255	<i>Commencement</i>	I 2/1705
NCC 26256	<i>Accommodator</i>	I 2/1802, Sc 2/2302
NCC 26257	<i>Dominator</i>	I 2/1705
NCC 26258	<i>Lifeforce</i>	I 2/1707, R2 2/1910
NCC 26259	<i>Eradicator</i>	I 2/1706
NCC 26260	<i>Warrior</i>	I 2/1804
NCC 26261	<i>Pugilist</i>	I 2/1807
NCC 26262	<i>Archer</i>	I 2/1803
NCC 26263	<i>Grenadier</i>	I 2/1803
NCC 26264	<i>Fusilier</i>	I 2/1707, D 2/1812
NCC 26265	<i>Reforged</i>	I 2/1902, R2 2/2011
NCC 26266	<i>Brave Shield</i>	I 2/1708
NCC 26267	<i>Legionaire</i>	I 2/1903
NCC 26268	<i>Administrator</i>	I 2/1710, D 2/2002
NCC 26269	<i>Valhalla</i>	I 2/1805
NCC 26270	<i>Forceful</i>	I 2/1901, R2 2/2006
NCC 26271	<i>Redan</i>	I 2/1812
NCC 26272	<i>Perseus</i>	II 2/1802
NCC 26273	<i>Thetis</i>	II 2/1802, R3 2/2209
NCC 26274	<i>Crommalen</i>	II 2/1802

NCC 26275	<i>Amador</i>	II 2/1803
NCC 26276	<i>Circe</i>	II 2/1806
NCC 26277	<i>Achilles</i>	II 2/1803
NCC 26278	<i>Odysseus</i>	II 2/1803, R3 2/2206
NCC 26279	<i>Ra</i>	II 2/1805, D 2/2111
NCC 26280	<i>Odessa</i>	II 2/1806
NCC 26281	<i>Thurgen</i>	II 2/1804
NCC 26282	<i>Athena</i>	II 2/1808
NCC 26283	<i>Hypnos</i>	II 2/1808
NCC 26284	<i>Vesta</i>	II 2/1805
NCC 26285	<i>Hermes</i>	II 2/1806
NCC 26286	<i>Artemis</i>	II 2/1810
NCC 26287	<i>Minerva</i>	II 2/1902
NCC 26288	<i>Bacchus</i>	II 2/1901
NCC 26289	<i>Dionysus</i>	II 2/1812
NCC 26290	<i>Ceres</i>	II 2/1905
NCC 26291	<i>Ares</i>	II 2/1908
NCC 26292	<i>Hestia</i>	II 2/1912
NCC 26293	<i>Asclepius</i>	II 2/1907, R3 2/2204
NCC 26294	<i>Hephaestus</i>	II 2/2001
NCC 26295	<i>Demeter</i>	II 2/2004
NCC 26296	<i>Poseidon</i>	II 2/2010
NCC 26297	<i>Hera</i>	II 2/2003
NCC 26298	<i>Chronos</i>	II 2/2010
NCC 26299	<i>Hathor</i>	II 2/2102
NCC 26300	<i>Isis</i>	II 2/2106, R3 2/2204
NCC 26301	<i>Osiris</i>	II 2/2103
NCC 26302	<i>Thoth</i>	II 2/2107

Historical Notes:

The *USS Triumph* was listed as missing when it failed to make scheduled reports to Galaxy Exploration Command. The official date that the ship was listed as missing was Stardate 2/1706, even though its last report was on 2/1705. The *USS Regulator* was dispatched to search for the missing vessel on Stardate 2/1707. The *Regulator* failed to make its scheduled report on Stardate 2/1712 and was also listed as missing. Both vessels were under the direction of Galaxy Exploration Command and were operating in rimward frontier areas. Subsequent searches have produced no evidence of the whereabouts of these two vessels, and all search activities were called off by Stardate 2/1805.

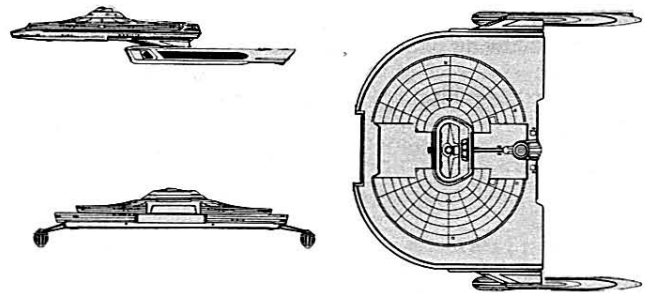
On Stardate 2/2301, the *USS Accommodator* returned from a 3-year mission into the spinward frontier. Most crewmembers were given leave while the ship was to undergo scheduled maintenance. During the maintenance checks, the *Accommodator* was found to need parts that were not readily available and was therefore removed from its moorings inside the drydock and placed in an exterior mooring. On Stardate 2/2302, the *USS John B. Goodings*, a *Liberty* Class freighter, lost its directional maneuvering control system and rammed the *Accommodator*, causing excessive external damage and internal fires that could not be controlled for several days. The collision completely destroyed the damage control system of the *Accommodator*, and all surviving crewmembers were evacuated. The burning hulk was then towed away from the repair facility and allowed to burn itself out. When the ship was finally boarded by a damage control team, it was found to be totally unserviceable. The vessel was scrapped.



Brenton Class XI Cruiser

Construction Data:

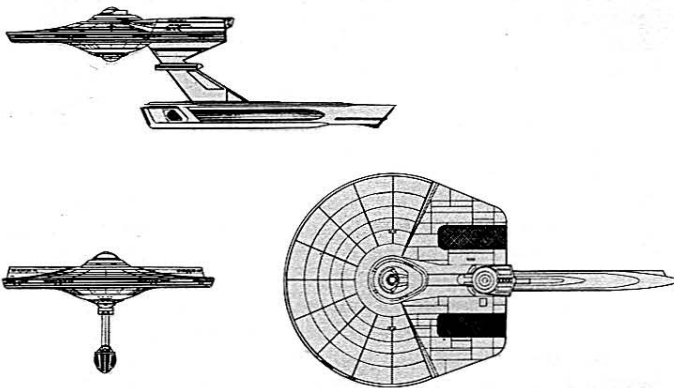
Model Numbers —	Mk I	Mk III	Mk V
Date Entering Service —	2/1404	2/1810	2/2101
Number Constructed —	108	59	18
Hull Data:			
Superstructure Points —	21	26	28
Damage Chart —	C	C	C
Size			
Length —	260 m	260 m	275 m
Width —	254 m	254 m	258 m
Height —	55 m	55 m	57 m
Weight —	162,200 mt	173,100 mt	177,300 mt
Cargo			
Cargo Units —	450 SCU	450 SCU	400 SCU
Cargo Capacity —	22,500 mt	22,500 mt	20,000 mt
Landing Capability —	None	None	None
Equipment Data:			
Control Computer Type —	M-4	M-4	M-4
Transporters —			
standard 6-person	4	4	4
emergency 22-person	3	3	3
cargo	2	2	2
Other Data:			
Crew —	378	386	395
Passengers —	60	60	60
Shuttlecraft —	4	4	4
Engines And Power Data:			
Total Power Units Available —	44	44	48
Movement Point Ratio —	4/1	4/1	4/1
Warp Engine Type —	FWF-1	FWF-1	FWF-1
Number —	2	2	2
Power Units Available —	20	20	20
Stress Charts —	G/L	G/L	G/L
Maximum Safe Cruising Speed —	Warp 6	Warp 6	Warp 6
Emergency Speed —	Warp 8	Warp 8	Warp 8
Impulse Engine Type —	FID-2	FID-2	FIE-2
Power Units Available —	4	4	8
Weapons And Firing Data:			
Beam Weapon Type —	FH-5	FH-8	FH-8
Number —	6 in 3 banks	6 in 3 banks	8 in 4 banks
Firing Arcs —	2/fp, 2l, 2/s	2/fp, 2l, 2/s	2/fp, 4l, 2/s
Firing Chart —	R	T	T
Maximum Power —	4	5	5
Damage Modifiers —			
+1	(1 - 8)	(1 - 10)	(1 - 10)
+2	(9 - 16)	(11 - 18)	(11 - 18)
Missile Weapon Type —	FP-3	FP-6	FP-5
Number —	3	3	3
Firing Arcs —	2/f, 1a	2/f, 1a	2/f, 1a
Firing Chart —	D	O	R
Power To Arm —	1	1	1
Damage —	6	12	16
Shields Data:			
Deflector Shield Type —	FSK	FSL	FSL
Shield Point Ratio —	1/2	1/3	1/3
Maximum Shield Power —	14	14	14
Combat Efficiency:			
D —	82	106	113.5
WDF —	22.2	45.9	62.9



Notes:

Of the 185 *Brentons* built, 28 Mk Is, 57 Mk IIIs, and 18 Mk Vs remain in active service, with 12 Mk Is in reserve fleets; 1 Mk I is used by Star Fleet Training Command, 6 Mk Is have been destroyed, 1 Mk I has been captured by the Klingons, 1 Mk I and 1 Mk III are listed as missing, 2 Mk Is and 1 Mk III have been scrapped, and 2 Mk Is have been disarmed and sold to private commercial concerns.

The *Brenton* is produced at the Sol IV, Cait, and Morena shipyards at a combined rate of 12 per year.



Notes:

Of the 108 *Durrett*s built, 102 remain in active service, 1 is used in Star Fleet Training Command, 2 have been destroyed, 2 are listed as missing, and 1 has been scrapped.

The *Durrett* is produced at the Sol II facility at a rate of 14 per year.

Durrett Class VIII Cruiser

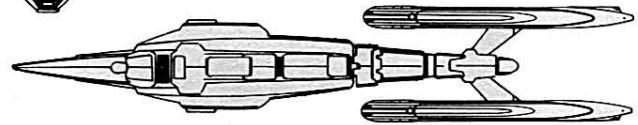
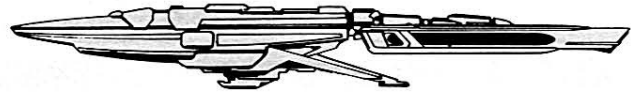
Construction Data:

Model Numbers —	Mk I
Date Entering Service —	2/1509
Number Constructed —	108
Hull Data:	
Superstructure Points —	22
Damage Chart —	C
Size	
Length —	240 m
Width —	131 m
Height —	75 m
Weight —	101,400 mt
Cargo	
Cargo Units —	200 SCU
Cargo Capacity —	10,000 mt
Landing Capability —	None
Equipment Data:	
Control Computer Type —	M-3
Transporters —	
standard 6-person	4
emergency 22-person	2
cargo	2
Other Data:	
Crew —	320
Passengers —	10
Shuttlecraft —	4
Engines And Power Data:	
Total Power Units Available —	32
Movement Point Ratio —	3/1
Warp Engine Type —	FWC-2
Number —	1
Power Units Available —	20
Stress Charts —	M/K
Maximum Safe Cruising Speed —	Warp 6
Emergency Speed —	Warp 8
Impulse Engine Type —	FIF-1
Power Units Available —	12
Weapons And Firing Data:	
Beam Weapon Type —	FH-8
Number —	4 in 2 banks
Firing Arcs —	2/fp, 2/s
Firing Chart —	X
Maximum Power —	6
Damage Modifiers —	
+1	(1 - 12)
+2	(13 - 22)
Missile Weapon Type —	FP-6
Number —	2
Firing Arcs —	1f, 1a
Firing Chart —	O
Power To Arm —	1
Damage —	12
Shields Data:	
Deflector Shield Type —	FSL
Shield Point Ratio —	1/3
Maximum Shield Power —	16
Combat Efficiency:	
D —	100.5
WDF —	37.4

Epsilon Class III-IV Cutter

Construction Data:

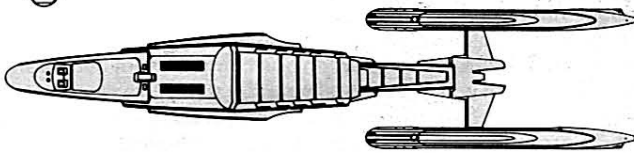
Model Numbers —	MK I	MK II
Ship Class —	III	IV
Date Entering Service —	2/1104	2/1412
Number Constructed —	461	344
Hull Data:		
Superstructure Points —	7	9
Damage Chart —	C	C
Size		
Length —	96 m	96 m
Width —	18 m	18 m
Height —	12 m	12 m
Weight —	17,925 mt	25,975 mt
Cargo		
Cargo Units —	5 SCU	5 SCU
Cargo Capacity —	250 mt	250 mt
Landing Capability —	Yes	Yes
Equipment Data:		
Control Computer Type —	L-14	L-14
Transporters —		
standard 6 person	1	1
combat 20 person	1	1
cargo	1	1
Other Data:		
Crew —	25	28
Passengers —	10	10
Troops —	10	10
Engines And Power Data:		
Total Power Units Available —	18	26
Movement Point Ratio —	2/1	3/1
Warp Engine Type —	FWA-2	FWH-1
Number —	2	2
Power Units Available —	8	10
Stress Charts —	J/M	O/R
Maximum Safe Cruising Speed —	Warp 6	Warp 5
Emergency Speed —	Warp 8	Warp 6
Impulse Engine Type —	FIB-1	FIB-3
Power Units Available —	2	6
Weapons And Firing Data:		
Beam Weapon Type —	FH-6	FH-6
Number —	4 in 2 banks	4 in 2 banks
Firing Arcs —	2Up, 2Us	2Up, 2Us
Firing Chart —	N	N
Maximum Power —	3	3
Damage Modifiers —		
+2	(1 - 7)	(1 - 7)
+1	(8 - 13)	(8 - 13)
Shields Data:		
Deflector Shield Type —	FSB	FSB
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	9	8
Combat Efficiency:		
D —	49	47.9
WDF —	10	10



Notes:

Of the 805 *Epsilons* built, 363 Mk Is and 266 Mk IIs remain in active service, with 16 Mk Is and 8 Mk IIs in reserve fleets; 4 Mk Is and 2 Mk IIs are used by Star Fleet Training Command; 87 Mk Is and 41 Mk IIs have been destroyed, 4 Mk Is disappeared along the Triangle border, and 2 Mk Is disappeared on the Rimward frontier; 2 Mk Is and 4 Mk IIs have been scrapped, and 6 Mk Is have been sold to civilian commercial interests.

The *Epsilon* Class cutters are produced at the Morena, Salazaar, and Merak shipyards at a combined rate of 18 per year.



Notes:

Of the 1,297 *Solar* Class cutters built, 144 Mk IIIs and 524 Mk VIs remain in active service; with 196 Mk Is and 42 Mk IIs in reserve fleets. Twenty-four Mk IIs and 24 Mk VIs are used by Star Fleet Training Command; 79 Mk Is, 48 Mk IIs, and 46 Mk VIs have been destroyed; 2 Mk Is, 1 Mk III and 3 Mk VIs are listed as missing; 16 Mk Is, 14 Mk IIs, and 14 Mk VIs have been scrapped; and 81 Mk Is, 29 Mk IIs, and 10 Mk VIs have been sold to civilian commercial concerns.

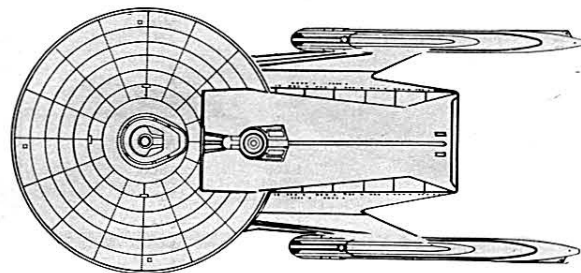
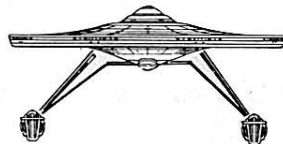
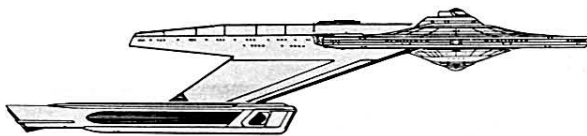
The *Solar* Class cutters are manufactured at the Salazaar and Alpha Centauri shipyards at a combined rate of 26 per year.

Solar Class III Cutter

Construction Data:

Model Numbers —	MK I	MK III	MK VI
Date Entering Service —	1/8805 2/1501	2/1010	2/1206
Number Constructed —	588	410	621
Hull Data:			
Superstructure Points —	6	7	8
Damage Chart —	C	C	C
Size			
Length —	90 m	90 m	90 m
Width —	20 m	20 m	20 m
Height —	12 m	12 m	12 m
Weight —	17,100 mt	18,100 mt	20,400 mt
Cargo			
Cargo Units —	5 SCU	5 SCU	5 SCU
Cargo Capacity —	250 mt	250 mt	250 mt
Landing Capability —	Yes	Yes	Yes
Equipment Data:			
Control Computer Type —	L-14	L-14	L-14
Transporters —			
standard 6 person	1	1	1
combat 20 person	1	1	1
cargo	1	1	1
Other Data:			
Crew —	23	25	28
Passengers —	6	6	6
Troops —	10	10	10
Engines And Power Data:			
Total Power Units Available —	15	19	19
Movement Point Ratio —	1/1	1/1	1/1
Warp Engine Type —	FWA-1	FWA-2	FWA-2
Number —	2	2	2
Power Units Available —	6	8	8
Stress Charts —	G/K	J/M	J/M
Maximum Safe Cruising Speed —	Warp 7	Warp 7	Warp 7
Emergency Speed —	Warp 9	Warp 9	Warp 9
Impulse Engine Type —	FIA-3	FIA-3	FIA-3
Power Units Available —	3	3	3
Weapons And Firing Data:			
Beam Weapon Type —	FH-1	FH-1	FH-2
Number —	6 in 3 banks	6 in 3 banks	6 in 3 banks
Firing Arcs —	2Up, 2L, 2Us	2Up, 2L, 2Us	2Up, 2L, 2Us
Firing Chart —	F	F	H
Maximum Power —	2	2	3
Damage Modifiers —			
+1			(1 - 10)
Shields Data:			
Deflector Shield Type —	FSB	FSB	FSB
Shield Point Ratio —	1/2	1/2	1/2
Maximum Shield Power —	11	11	11
Combat Efficiency:			
D —	66.6	80.6	80.6
WDF —	3.0	3.0	7.8

Baker Class IX Destroyer



Construction Data:

Model Numbers —	MK II	MK IV
Date Entering Service —	2/1606	2/1912
Number Constructed —	162	62

Hull Data:

Superstructure Points —	15	17
Damage Chart —	C	C
Size		
Length —	301 m	301 m
Width —	148 m	148 m
Height —	77 m	77 m
Weight —	121,300 mt	125,600 mt

Cargo

Cargo Units —	110 SCU	110 SCU
Cargo Capacity —	5,500 mt	5,500 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	M-3	M-4
Transporters —		
standard 6-person	4	4
emergency 22-person	2	2
cargo	1	1

Other Data:

Crew —	265	273
Passengers —	15	15
Shuttlecraft —	2	2

Engines And Power Data:

Total Power Units Available —	30	38
Movement Point Ratio —	3/1	3/1
Warp Engine Type —	FWE-2	FWE-2
Number —	2	2
Power Units Available —	13	13
Stress Charts —	G/K	G/K
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 9	Warp 9
Impulse Engine Type —	FID-2	FIF-1
Power Units Available —	4	12

Weapons And Firing Data:

Beam Weapon Type —	FH-8	FH-8
Number —	6 in 3 banks	6 in 3 banks
Firing Arcs —	4 p/l/s, 2f	4 p/l/s, 2f
Firing Chart —	T	T
Maximum Power —	5	5
Damage Modifiers —		
+2	(1 - 10)	(1 - 10)
+1	(11 - 18)	(11 - 18)

Missile Weapon Type —

Number —	2	2
Firing Arcs —	f	f
Firing Chart —	H	L
Power To Arm —	1	1
Damage —	6	10

Shields Data:

Deflector Shield Type —	FSI	FSI
Shield Point Ratio —	1/3	1/3
Maximum Shield Power —	12	12

Combat Efficiency:

D —	81.5	96.3
WDF —	27.6	34.8

The *Baker* Class destroyer has a unique development history. When the original contracts were let out, they called for a research vessel with limited combat capabilities. The designs for the ship were accepted by Star Fleet Procurement, and, on Stardate 2 1403, the actual construction of the *Baker* Class research cruiser began.

As the main hull neared completion, Star Fleet decided that a destroyer was needed to supplement the *Larson* Class. At this same time, the Admiralty was of the opinion that fewer research cruisers would be needed on the frontiers. The *Baker* class was then dropped as a research cruiser and redesignated a destroyer.

In order to accomplish its mission as a destroyer, the *Baker's* design underwent several changes. The laboratory facilities were removed and crew quarters and recreation areas were expanded. The *Baker* class vessels are well known for these spacious quarters and crew comforts. Another change came in the weaponry. The original design had only four phasers, and as can be seen, the finished design, known as the Mk II, was fitted with six phasers and two torpedoes.

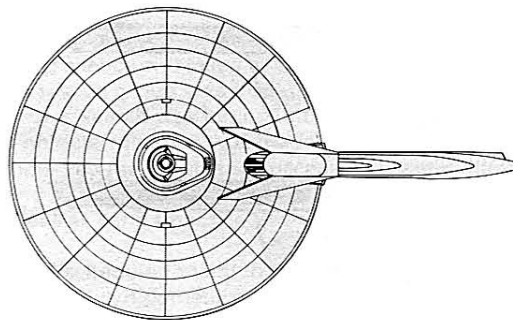
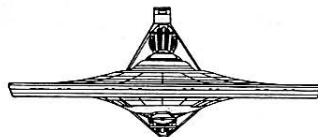
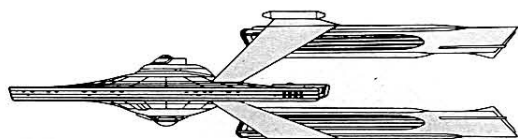
On Stardate 2 1606 the *Baker* Class destroyer was brought into service with the commissioning of the *USS Baker*, *USS Stafford*, and *USS Peterson*. Since that time, 224 ships of this class have been commissioned. As was intended, these vessels are being used to replace the aging *Larson* Class destroyers in more hostile areas, the latter being used more and more along trailing and rimward frontiers.

The *Baker* Class has a compartmented dual-wall internal structure to give additional protection from explosive decompression during battle. Earlier designs with single-wall protection often ruptured when one compartment decompressed, victims of a domino effect that would eventually render the entire vessel incapable of sustaining itself. Although compartmentation is not new in ship design, double walls separated by a pressurized dead space was. Such a dead space counteracts the forces on the outer wall surfaces by means of sensors that detect any changes in pressure and trigger units that regulate the pressure inside the dead space. This system has become a standard feature on all Federation warships.

The *Baker* Class destroyer is the first vessel in Star Fleet to be designed with the newer style nacelle; previous uses were all refits. The FWE-2 warp drive system was installed to give a cruising speed of Warp 7 and temporary speeds of Warp 8, as well as great maneuverability, making it more efficient in battle than many of its counterparts. The weapons arrangement of the *Baker* Class is unusual by Star Fleet standards. Two of the phaser banks are capable of firing in all quadrants except directly to the rear, unlike most other Federation vessels on which they are usually positioned to fire in only two quadrants.

The *Baker* Class remained unchanged until an experimental model, the *USS Knutson*, completed its testing of an impulse drive system that would increase the total power output of the vessel by 25%. The Mk III went into production on Stardate 2 1804, but was quickly replaced by the Mk IV with upgraded FP-1 photon torpedoes. All Mk III's have been refitted to this design.

Wilkerson Class IX Destroyer



Construction Data:

Model Numbers —	MK I
Date Entering Service —	2/1804
Number Constructed —	132

Hull Data:

Superstructure Points —	15
Damage Chart —	C
Size	
Length —	240 m
Width —	150 m
Height —	60 m
Weight —	112,500 mt

Cargo

Cargo Units —	100 SCU
Cargo Capacity —	5,000 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	M-3
Transporters —	
standard 6-person	3
emergency 22-person cargo	2
	1

Other Data:

Crew —	200
Passengers —	20
Shuttlecraft —	2

Engines And Power Data:

Total Power Units Available —	38
Movement Point Ratio —	3/1
Warp Engine Type —	FWF-2
Number —	2
Power Units Available —	13
Stress Charts —	G/K
Maximum Safe Cruising Speed —	Warp 7
Emergency Speed —	Warp 9
Impulse Engine Type —	FIF-1
Power Units Available —	12

Weapons And Firing Data:

Beam Weapon Type —	FH-3
Number —	4 in 2 banks
Firing Arcs —	2l/p, 2l/s
Firing Chart —	W
Maximum Power —	S
Damage Modifiers —	
+3	(1 - 10)
+2	(11 - 17)
+1	(18 - 20)
Missile Weapon Type —	FP-1
Number —	2
Firing Arcs —	1f, 1a
Firing Chart —	L
Power To Arm —	1
Damage —	10

Shields Data:

Deflector Shield Type —	FSI
Shield Point Ratio —	1/3
Maximum Shield Power —	12

Combat Efficiency:

D —	93.5
WDF —	32.0



Notes:

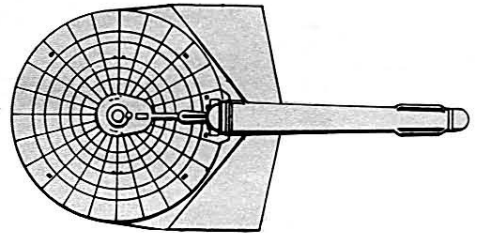
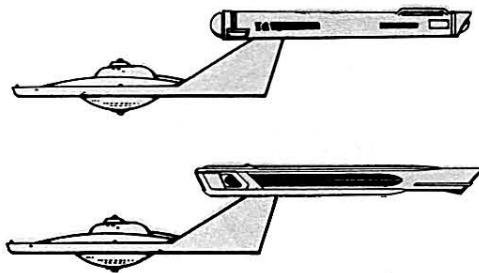
The *Wilkerson* Class destroyers, which first entered service on Stardate 2/1804, have since become a favorite among the personnel of Star Fleet's Destroyer Command. These sleek ships are not only fast and maneuverable, but also well-armed and shielded. Spacious crew quarters and work areas make tours of duty aboard a *Wilkerson* much sought-after.

The *Wilkersons* were tested for combat readiness shortly after they began arriving at their duty stations. Six of them participated in Solar Wind IV, a fleet-level training operation designed to test the fleet's ability to respond to and repulse an invasion by limited Romulan forces. The after-action reports showed the *Wilkerson* to be a formidable opponent. During this operation, the *Wilkersons* were in combat four times and suffered no losses. The only pertinent negative reports from the operation were due to an overzealous captain who was so flushed with victory during a successful engagement that he pursued the fleeing enemy ships and left his support behind. Luckily, he broke off the action after realizing that he was the only ship in pursuit of the five enemy ships.

During a docking operation on Stardate 2/2010, the *USS Carmichael* was pulled into the *USS Henley*. Both *Wilkersons* were destroyed, along with the docking facility and 730 personnel. Post-accident investigations revealed that a faulty tractor beam guidance control aboard the docking facility pulled the *Carmichael* into the *Henley*.

Of the 132 *Wilkersons* built, 128 remain in active service, 2 are used by Star Fleet Training Command, and 2 have been destroyed. The *Wilkerson* Class destroyers are produced at the Sol IV and Salazaar shipyards at a combined rate of 26 per year. Star Fleet has contracted for the construction of 340 of these destroyers.

Larson Class VII Destroyer



Construction Data:

Model Numbers —	MK I	MK II	MK VI	MK VII
Date Entering Service —	1/8801-2/0109	1/9804-2/2205	2/0912	2/1403
Number Constructed —	109	34	6	13
Hull Data:				
Superstructure Points —	11	10	14	16
Damage Chart —	C	C	C	C
Size				
Length —	269 m	269 m	269 m	272 m
Width —	134 m	134 m	134 m	134 m
Height —	62 m	62 m	62 m	62 m
Weight —	82,400 mt	80,750 mt	87,000 mt	88,600 mt
Cargo				
Cargo Units —	200 SCU	200 SCU	200 SCU	200 SCU
Cargo Capacity —	10,000 mt	10,000 mt	10,000 mt	10,000 mt
Landing Capability —	None	None	None	None
Equipment Data:				
Control Computer Type —	M-1	M-1	M-1	M-1
Transporters —				
standard 6-person	4	4	4	4
emergency 22-person	3	3	3	3
cargo	1	1	1	1
Other Data:				
Crew —	195	195	200	200
Passengers —	10	10	10	10
Shuttlecraft —	6	6	6	6
Engines And Power Data:				
Total Power Units Available —	22	22	23	28
Movement Point Ratio —	2/1	2/1	2/1	2/1
Warp Engine Type —	FWC-2	FWC-2	FWC-2	FWC-2
Number —	1	1	1	1
Power Units Available —	20	20	20	20
Stress Charts —	M/K	M/K	M/K	M/K
Maximum Safe Cruising Speed —	Warp 7	Warp 7	Warp 7	Warp 7
Emergency Speed —	Warp 9	Warp 9	Warp 9	Warp 9
Impulse Engine Type —	FIB-1	FIB-1	FIC-2	FIE-2
Power Units Available —	2	2	3	8
Weapons And Firing Data:				
Beam Weapon Type —	FL-2	FH-4	FH-7	FH-7
Number —	6 in 3 banks	6 in 3 banks	6 in 3 banks	6 in 3 banks
Firing Arcs —	21/p, 2f, 2f	21/p, 2f, 2f/s	21/p, 2f, 2f/s	21/p, 2f, 2f/s
Firing Chart —	F	Q	Q	Q
Maximum Power —	2	3	4	4
Damage Modifiers —	None			
+2		(1 - 8)	(1 - 8)	(1 - 8)
+1		(9 - 15)	(9 - 15)	(9 - 15)
Missile Weapon Type —	FAC-1	FP-2	FP-2	FP-2
Number —	1	2	2	2
Firing Arcs —	f	f	f	f
Firing Chart —	F	H	H	H
Power To Arm —	3	1	1	1
Damage —	8	6	6	6
Shields Data:				
Deflector Shield Type —	FSC	FSC	FSD	FSF
Shield Point Ratio —	1/1	1/1	1/2	1/2
Maximum Shield Power —	8	8	7	10
Combat Efficiency:				
D —	36.2	34.8	63.0	77.0
WDF —	4.2	19.6	23.2	23.2

Designed at the same time as the *Nelson* class scouts and the *Constitution* class cruisers, *Larson* Class destroyers share many of the same physical features of these ships. An efficient ship that performed its function well, it was intended to perform the same tasks as other dual-function vessels, namely both research and defense. Even so, most of the existing *Larsons* in service are employed by Star Fleet's Military Operations Command, with several serving in the Galaxy Exploration Command.

Destroyers such as the *Larson* frequently are employed on patrol duty along the frontier areas. In time of war or other military emergencies, *Larsons* and other destroyers may be assigned to escort convoys or used as scouts by squadrons or small fleets. With its array of weapons, it is a fine combat vessel, though not as powerful as a cruiser or larger ship.

As can be seen by reviewing the statistics, the *Larson* Mk I was introduced into service on Stardate 1/8801, remaining unchanged until the introduction of the Mk II on Stardate 1/9804, when laser weaponry was replaced by the newer phaser and photon technology. All Mk I vessels were refitted with the new weapons by 2/0109. Several small interior changes were also made, but these did not affect the combat performance of the vessels until the introduction of the Mk VI.

The Mk VI mounted a more powerful impulse drive system, improved phaser weapons and the more efficient FSD shield generators. The Mk VII, introduced on Stardate 2/1403, mounted the newer style engine nacelle and a more powerful impulse drive system. This increased the overall power output by 25% and extended the service life of the *Larson* class by several years. As of Stardate 2/2205, all *Larsons* in active service have been upgraded to the Mk VI, and several have been modified to Mk VII.

Production of the *Larson* Class was halted on Stardate 2/1808 with the commissioning of the *USS Juno*. This class is being supplemented by several newer destroyer designs and may see an end to service within the next 5 to 7 years.

No ships sold to the private sector have been refit, and most retain the characteristics they had at the time of sale. All vessels sold were disarmed by Star Fleet, though the weapon-mounting hardpoints usually were left intact.

Historical Notes

Larsons are named for military leaders and battles of Terran origin. The class vessel is named for Admiral William G. Larson, hero of the battle at Gamma Hydra during the Romulan War. The only exception to this naming convention is NCC 4305 *Thelenth*, which is named after an Andorian admiral who defeated the Klingons in a pitched battle at Donovan's Star at the cost of his own ship and crew.

The ships *Hammurabi* and *Troy* were both destroyed while escorting a convoy of merchant ships bound for a frontier area. During this battle, seventeen freighters were destroyed and an additional four were taken as prizes by the Klingons. Of the five ships that survived the encounter, all reported that the *Hammurabi* destroyed two Klingon D-7 cruisers and crippled two others before being destroyed itself. The *Troy* apparently was disabled in the initial exchange of fire and left for dead. When a Klingon cruiser ventured too close to the derelict, however, it opened fire and destroyed the enemy vessel in a single volley. Of course, without maneuvering power, the *Troy* later was easily dispatched.

On Stardate 2/0208, the *Bolivar* led a small detachment consisting of the *Normandy*, *Alesia*, *Babur*, and *Tecumseh* into an uncontrolled area near the Romulan Neutral Zone. The task force maintained radio silence and failed to report back at its scheduled time. When extensive communications attempts were made unsuccessfully, a rescue group was dispatched to the last reported position of the task force. Upon arrival, nothing was to be found, and an extensive search was begun, ultimately discovering the engine nacelle of the *Alesia* adrift in an unknown asteroid cluster. At the time no determination was made as to what had caused the loss of the ships, but it was suspected by many that the Romulans had ambushed the group and successfully destroyed them before they were able to send a call for aid. This theory was never proved, and no action was ever taken against the Romulans, largely because it was felt that the Romulans could not have crossed the Neutral Zone unnoticed. Since the discovery of the Romulan cloaking capability, the theory has been given new weight.

On Stardate 2/1502, the *USS Richtofen* was recalled for an engine refit and scheduled maintenance to shipboard systems. As the ship's refit and maintenance checks neared completion, spirited Ensigns and sympathetic workers painted it bright red in honor of its namesake. Star Fleet Command has decided to leave the ship this color despite the breach of regulations, though all Ensigns were mildly disciplined. The vessel is still in service and is assigned to the Klingon sector.

On its maiden flight, the *USS Sheridan* experienced a critical overload in its warp drive system. All backup systems failed to correct the problem. It was decided to jettison the engine pod because an uncontrolled matter anti-matter mix was underway and could not be stopped. The systems used to eject the engine also failed, and the ship was totally destroyed in the subsequent explosion. Three crewmembers who had taken refuge in a shuttle survived.

The *Larson* Class destroyers were produced at the Sol V and Proxima shipyards.

Disposition:

The following list of *Larson* Class destroyers shows their hull numbers, name, model, date entering service, and current disposition. The disposition is represented by letter codes given below and is followed by the date of occurrence, if known.

I	Inactive	R2	Refit to Mk II
D	Destroyed by hostile action or natural disaster.	R6	Refit to Mk VI
DK	Destroyed in Four Years War S Sold to private sector	R7	Refit to Mk VII
Sc	Scrapped	T	Used by Training Command
L	Lost, whereabouts unknown		

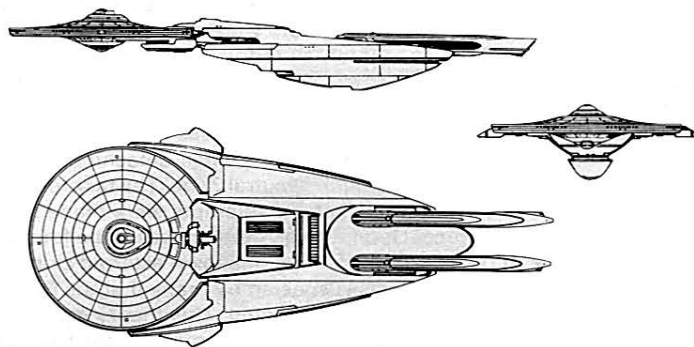
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 NCC 4301 Midway I 1/8801, DK 1/9411
 NCC 4302 Coral Sea I 1/8802, R2 2/0806, R6 2/1002, R7 2/1501
 NCC 4303 Tannenber I 1/8803, R2 1/9909, R6 2/1001
 NCC 4304 Trafalgar I 1/8803, R2 1/9806, R6 2/1102, R7 2/1408
 NCC 4305 Thelenth I 1/8804, R2 1/9806, R6 2/1202, R7 2/1503
 NCC 4306 Waterloo I 1/8806, D 1/9909
 NCC 4307 Borodino I 1/8807, R2 1/9805, R6 2/0912, R7 2/1404
 NCC 4308 Austerlitz I 1/8807, DK 1/9702
 NCC 4309 Normandy I 1/8807, R2 2/0010, L 2/2008
 NCC 4310 Marathon I 1/8810, R2 1/9909, R6 2/1104
 NCC 4311 Pharsalus I 1/8810, DK 1/9506
 NCC 4312 Crete I 1/8910, R2 1/9804, R6 2/1107
 NCC 4313 Poitiers I 1/8903, R2 1/9901, L 2/0909
 NCC 4314 Agincourt I 1/8903, R2 1/9912, R6 2/1011, S 2/1202
 NCC 4315 Blenheim I 1/8906, R2 1/9903, R6 2/1103, R7 2/1511
 NCC 4316 Torgau I 1/8908, R2 1/9805, R6 2/1001, R7 2/1502
 NCC 4317 Eylau I 1/8909, DK 1/9602
 NCC 4318 Leyte I 1/8910, R2 1/9807, R6 2/0912, R7 2/1409
 NCC 4320 Leipzig I 1/8910, R2 2/0104, L 2/1010
 NCC 4322 Buena Vista I 1/9002, DK 1/9506
 NCC 4323 Garbo I 1/9004, R2 1/9809, R6 2/1002
 NCC 4324 Gettysburg I 1/9005, R2 1/9804, R6 2/1006, R7 2/1403
 NCC 4325 Castilian I 1/9006, R2 1/9901, R6 2/1107, R7 2/1412
 NCC 4326 Shiloh I 1/9009, R2 1/9812, S 2/0802
 NCC 4327 Gallipoli I 1/9011, R2 1/9805, R6 2/1303, R7 2/1801
 NCC 4328 Jutland I 1/9012, R2 1/9808, R6 2/1401, R7 2/1606
 NCC 4329 Anzio I 1/9104, DK 9/512
 NCC 4331 Corregidor I 1/9107, R2 1/9807, R6 2/1002, S 2/1111
 NCC 4332 Guadalcanal I 1/9108, R2 1/9807, R6 2/0912, R7 2/1411
 NCC 4333 Iwo Jima I 1/9108, DK 1/9512
 NCC 4334 Okinawa I 1/9108, R2 2/0008, R6 2/1004
 NCC 4335 Ramses I 1/9110, R2 1/9912, R6 2/1009, R7 2/1410
 NCC 4336 Thebes I 1/9112, DK 1/9801
 NCC 4337 Hammurabi I 1/9201, DK 1/9604
 NCC 4338 Troy I 1/9204, DK 1/9604
 NCC 4339 Chou I 1/9206, R2 1/9903, R6 2/1008, S 2/1302
 NCC 4340 Xerxes I 1/9208, R2 1/9901, R6 2/1202, R7 2/1412, S 2/1811
 NCC 4341 Salamis I 1/9208, R2 1/9804, L 2/2001
 NCC 4342 Xenophon I 1/9211, R2 1/9903, R6 2/1211, R7 2/1602
 NCC 4343 Julius Caesar I 1/9211, R2 2/0012, S 2/1704
 NCC 4344 Napoleon I 1/9303, R2 1/9807, R6 2/0912, R7 2/1509
 NCC 4345 Cochise I 1/9306, R2 2/0106, R6 2/1102, R7 2/1403
 NCC 4346 Luzen I 1/9309, R2 1/9804, R6 2/1102
 NCC 4347 Sun Tzu I 1/9311, R2 1/9911, R6 2/1006, R7 2/1803
 NCC 4348 Demetrius I 1/9311, DK 1/9503
 NCC 4350 Hannibal I 1/9402, R2 1/9804, R6 2/1106, R7 2/1910
 NCC 4351 Thermopylae I 1/9406, R2 1/9808, R6 2/1303
 NCC 4352 Scipio I 1/9409, R2 2/0101, R6 2/1105, R7 2/1611
 NCC 4353 Cannae I 1/9409, R2 2/0102, R6 2/0912, S 2/1208
 NCC 4354 Alesia I 1/9409, R2 2/0003, L 2/2002
 NCC 4355 Marc Antony I 1/9409, R2 2/0109, L 2/2002
 NCC 4356 Liu Pang I 1/9410, R2 1/9809, R6 2/1010, R7 2/1801
 NCC 4357 Constantine I 1/9411, R2 1/9911, L 2/1010

NCC 4358 Alaric I 1/9412, DK 1/9802
 NCC 4360 Orleans I 1/9501, D 1/9909
 NCC 4361 Pendergon I 1/9502, R2 1/9809, R6 2/1202, R7 2/1606
 NCC 4362 Justinian I 1/9503, R2 1/9912, R6 2/1011, R7 2/1410, L 2/1511
 NCC 4363 Tiberius I 1/9506, R2 2/0012, R6 2/1201, R7 2/1603
 NCC 4364 Charlemagne I 1/9506, R2 1/9908, R6 2/0912, R7 2/1802
 NCC 4366 Jashur I 1/9506, R2 1/9805, R6 2/1401
 NCC 4367 Alexander I 1/9506, R2 1/9906, R6 2/1212, R7 2/1703
 NCC 4368 Saladin I 1/9507, R2 2/0109, R6 2/1103, R7 2/1512
 NCC 4369 Hardraade I 1/9508, R2 2/0003, R6 2/0912, R7 2/1801
 NCC 4371 Frederick I 1/9510, R2 2/0006, R6 2/1305
 NCC 4372 Ace I 1/9510, DK 1/9609
 NCC 4373 Rajendra I 1/9602, R2 2/0009, L 2/1606
 NCC 4374 Bahu I 1/9603, DK 1/9609
 NCC 4375 Genghis Khan I 1/9603, R2 1/9910, R6 2/1010, R7 2/1602
 NCC 4376 Liegnitz I 1/9603, R2 2/0101, L 2/1304
 NCC 4377 Cromwell I 1/9604, R2 2/0107, R6 2/1103, R7 2/1711
 NCC 4378 Joan Of Arc I 1/9605, R2 2/0001, R6 2/1208, R7 2/1510
 NCC 4379 San Miguel I 1/9606, DK 1/9611
 NCC 4380 Babur I 1/9606, R2 1/9901, L 2/2008
 NCC 4381 Hideyoshi I 1/9607, R2 1/9809, R6 2/1301
 NCC 4382 Bayinnaung I 1/9608, DK 1/9711
 NCC 4383 Cortez I 1/9609, R2 1/9806, R6 2/1011, R7 2/1512
 NCC 4384 Tenochtitlan I 1/9609, R2 2/0010, L 2/1303
 NCC 4385 Adolphus I 1/9610, R2 1/9912, R6 2/1209, R7 2/1708
 NCC 4386 de Tourville I 1/9610, DK 1/9801
 NCC 4387 Breitenfeld I 1/9611, R2 2/0002, R6 2/1312
 NCC 4388 Bradley I 1/9611, R2 1/9806, R6 2/1111, R7 2/1712
 NCC 4389 Blake I 1/9612, R2 1/9910, R6 2/1207, R7 2/1801
 NCC 4391 Nhat-Le I 1/9701, R2 2/0107, R6 2/1304, R7 2/1407
 NCC 4392 Marlborough I 1/9702, R2 2/0005, R6 2/1207
 NCC 4393 Ali Bey I 1/9702, D 2/0001
 NCC 4394 Washington I 1/9702, R2 2/0010, R6 2/1105, R7 2/1801
 NCC 4395 Wellington I 1/9703, R2 1/9901, R6 2/1208
 NCC 4397 Lafayette I 1/9704, R2 1/9901, R6 2/1202, R7 2/1709
 NCC 4398 Murat I 1/9704, R2 1/9807, R6 2/1204, R7 2/1505
 NCC 4399 Ney I 1/9705, DK 1/9711
 NCC 4400 Von Blucher I 1/9706, R2 1/9910, R6 2/1101, R7 2/1603
 NCC 4401 Khartoum I 1/9708, R2 2/0009, R6 2/1003
 NCC 4402 Tecumseh I 1/9709, R2 1/9901, L 2/2008
 NCC 4403 Perry I 1/9711, R2 1/9908, R6 2/1112, R7 2/1803
 NCC 4404 Hastings I 1/9711, R2 1/9910, R6 2/1304, R7 2/1701
 NCC 4405 Jackson I 1/9712, R2 2/0002, D 2/0505
 NCC 4407 San Jacinto I 1/9712, R2 2/0010, R6 2/1102, R7 2/1604
 NCC 4408 Palo Alto I 1/9801, R2 1/9806, R6 2/1206, R7 2/1409
 NCC 4409 Scott I 1/9801, DK 1/9802
 NCC 4410 Rommel I 1/9801, R2 1/9808, R6 2/1212, R7 2/1606
 NCC 4411 Bolivar I 1/9801, R2 1/9809, L 2/2008
 NCC 4412 San Martin I 1/9801, R2 1/9808, R6 2/1206, R7 2/1601
 NCC 4413 Boyaca I 1/9801, DK 1/9803
 NCC 4414 Dewey I 1/9801, R2 2/0101, R6 2/1310, R7 2/1606
 NCC 4415 Lee I 1/9802, R2 2/0108, R6 2/1202
 NCC 4416 Grant I 1/9802, R2 2/0103, R6 2/1008, R7 2/1505

NCC 4417 Moltke I 1/9803, R2 2/0012, R6 2/1010
 NCC 4418 Nakhimov I 1/9803, R2 2/0104, D 2/0801
 NCC 4419 Bakajava I 1/9805, R6 2/1007, R7 2/1610
 NCC 4420 Dreyfus I 1/9806, R6 2/1110, R7 2/1510
 NCC 4421 Mahdi I 1/9806, L 2/0603
 NCC 4422 Rorkes Drift I 1/9809, R6 2/1202, R7 2/1710
 NCC 4423 Semmes I 1/9811, D 1/9912
 NCC 4424 Chief Joseph I 1/9812, R6 2/1106, R7 2/1801
 NCC 4426 Hindenburg I 1/9903, R6 2/1208, R7 1/612
 NCC 4427 Foch I 1/9907, D 2/1111
 NCC 4428 Pershing I 1/9908, R6 2/1101, R7 2/1610
 NCC 4429 Nicholas I 1/9909, R6 2/1302, R7 2/1802
 NCC 4430 Kermul I 1/9912, R6 2/1010, R7 2/1509
 NCC 4431 Oyama I 2/0003, R6 2/1311, R7 2/1412
 NCC 4432 Pilsudski I 2/0005, R6 2/1212, R7 2/1609
 NCC 4433 Port Arthur I 2/0010, R6 2/1301, R7 2/1510
 NCC 4434 Tsushima I 2/0102, D 2/1309
 NCC 4435 Marne I 2/0108, R6 2/1403, R7 1409
 NCC 4436 Richtofen I 2/0111, R6 2/1311, R7 2/1712
 NCC 4437 MacArthur I 2/0205, R6 2/1301, R7 2/1610
 NCC 4438 Montgomery I 2/0209, D 2/1205
 NCC 4439 Nimitz I 2/0212, R6 2/1109, R7 2/1412
 NCC 4440 Zhukov I 2/0306, R6 2/1212, R7 2/1711
 NCC 4441 Eisenhower I 2/0311, R6 2/1203, D 2/1503
 NCC 4442 Wavell I 2/0409, D 2/1004
 NCC 4444 Doenitz I 2/0501, R6 2/1105, R7 2/1404
 NCC 4445 Tedder I 2/0512, R6 2/1012, R7 2/1709
 NCC 4447 Kursk I 2/0611, R6 2/1302, R7 2/1606
 NCC 4448 Axsanar I 2/0612, R6 2/1405, R7 2/1609
 NCC 4449 Collinswill I 2/0706, R6 2/1308, R7 2/1504, L 2/2012
 NCC 4450 Inchon I 2/0710, R6 2/1211, R7 2/1502
 NCC 4451 Dayan I 2/0805, R6 2/1301, L 2/2104
 NCC 4452 Doermann I 2/0902, R6 2/1212, R7 2/1802
 NCC 4453 Chryse I 2/0903, R6 2/1012, R7 2/1509, S 2/2202
 NCC 4454 Bursfield I 2/0906, R6 2/1106, R7 2/1606
 NCC 4455 Titian Plain I 2/0909, R6 2/1306, R7 2/1709
 NCC 4456 Kohlar VI 2/1002, R7 2/1511
 NCC 4457 Tana Re VI 2/1004, R7 2/1704
 NCC 4458 Conley VI 2/1107, R7 2/1801
 NCC 4459 Timoshenko VI 2/1202, R7 2/1711
 NCC 4460 Aguilar VI 2/1210, R7 2/1708
 NCC 4461 Stalingrad VI 2/1309
 NCC 4462 Imbrius VI 2/1403
 NCC 4463 Sheridan VII 2/1403, D 2/1403
 NCC 4464 Choam VII 2/1406
 NCC 4465 Varistan VII 2/1501
 NCC 4466 Mooribunde VII 2/1508
 NCC 4468 Jones VII 2/1601
 NCC 4469 Petrovich VII 2/1605
 NCC 4470 Schultz VII 2/1609
 NCC 4471 Petain VII 2/1707
 NCC 4472 de Gaulle VII 2/1707
 NCC 4473 Trenton VII 2/1803
 NCC 4474 Calisto VII 2/1808
 NCC 4475 Juno VII 2/1808

Lenthal Class IX Destroyer

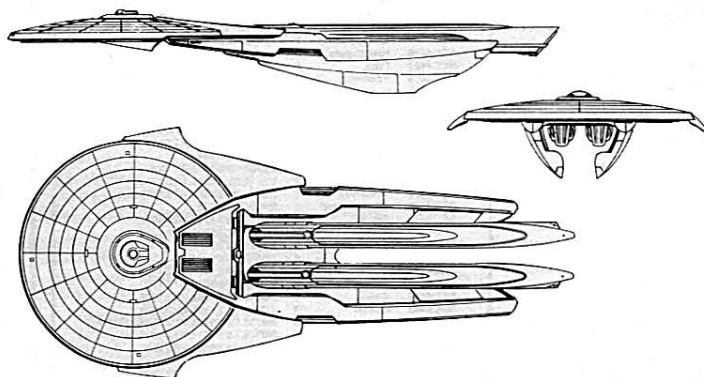
Construction Data:		
Model Numbers —	Mk II	Mk V
Date Entering Service —	2/1202	2/1708
Number Constructed —	201	110
Hull Data:		
Superstructure Points —	18	19
Damage Chart —	C	C
Size		
Length —	260 m	260 m
Width —	110 m	110 m
Height —	40 m	40 m
Weight —	133,700 mt	135,300 mt
Cargo		
Cargo Units —	100 SCU	100 SCU
Cargo Capacity —	5,000 mt	5,000 mt
Landing Capability —	None	None
Equipment Data:		
Control Computer Type —	M-2	M-2
Transporters —		
standard 6 person	4	4
emergency 22 person	2	2
cargo	1	1
Other Data:		
Crew —	160	165
Passengers —	10	10
Shuttlecraft —	2	2
Engines And Power Data:		
Total Power Units Available —	36	40
Movement Point Ratio —	3/1	3/1
Warp Engine Type —	FWD-1	FWD-1
Number —	2	2
Power Units Available —	12	12
Stress Charts —	L/G	L/G
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 9	Warp 9
Impulse Engine Type —	FIF-1	FIF-2
Power Units Available —	12	16
Weapons And Firing Data:		
Beam Weapon Type —	FH-12	FH-13
Number —	6 in 2 banks	6 in 2 banks
Firing Arcs —	31/p, 31/s, 2a	31/p, 31/s, 2a
Firing Chart —	R	T
Maximum Power —	6	8
Damage Modifiers —		
+3	(1 - 9)	(1 - 5)
+2	(10 - 16)	(6 - 12)
+1		(13 - 18)
Shields Data:		
Deflector Shield Type —	FSH	FSH
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	12	12
Combat Efficiency:		
D —	77.7	82.1
WDF —	29.4	39



Notes:

Of the 311 *Lenthals* built, 161 Mk IIs and 98 Mk Vs remain in active service, with 10 Mk IIs in reserve fleets; 2 Mk IIs are used by Star Fleet Training Command; 22 Mk IIs and 10 Mk Vs have been destroyed; 2 Mk IIs are listed as missing; 2 Mk IIs and 2 Mk Vs have been scrapped; and 2 Mk IIs have been sold to civilian commercial concerns.

The *Lenthal*, an Andorian design, is manufactured at Salazaar at a rate of 18 per year.



Notes:

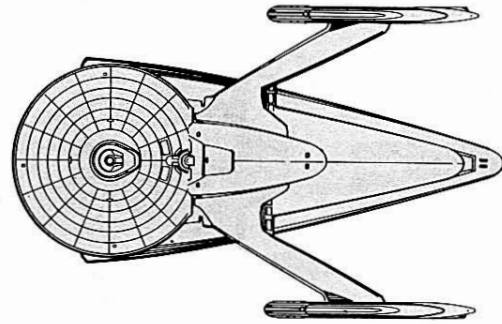
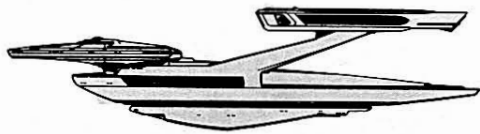
Of the 374 *Thufir* Class destroyers built, 192 Mk Is and 136 Mk IIIs remain in active service, with 6 Mk Is in reserve fleets. Of the remainder, 1 Mk III is used by Star Fleet Training Command, 26 Mk Is and 8 Mk IIIs have been destroyed; 1 Mk III is listed as missing; 1 Mk I and 2 Mk IIIs have been scrapped; and 1 Mk I has been sold to civilian commercial concerns.

The *Thufir*, an Andorian design, is produced at the Morena and Salazaar shipyards at a combined rate of 15 per year.

Thufir Class VIII-IX Destroyer

Construction Data:		
Model Numbers —	Mk I	Mk III
Ship Class —	VIII	IX
Date Entering Service —	2/1011	2/1503
Number Constructed —	226	148
Hull Data:		
Superstructure Points —	15	16
Damage Chart —	C	C
Size		
Length —	280 m	280 m
Width —	130 m	130 m
Height —	40 m	40 m
Weight —	110,900 mt	132,430 mt
Cargo		
Cargo Units —	100 SCU	100 SCU
Cargo Capacity —	5,000 mt	5,000 mt
Landing Capability —	None	None
Equipment Data:		
Control Computer Type —	M-3	M-3
Transporters —		
standard 6 person	3	3
emergency 22 person	2	2
cargo	1	1
Other Data:		
Crew —	180	180
Passengers —	15	15
Shuttlecraft —	4	4
Engines And Power Data:		
Total Power Units Available —	29	39
Movement Point Ratio —	3/1	2/1
Warp Engine Type —	FWE-2	FWD-2
Number —	2	2
Power Units Available —	13	18
Stress Charts —	G/K	M/G
Maximum Safe Cruising Speed —	Warp 7	Warp 6
Emergency Speed —	Warp 9	Warp 8
Impulse Engine Type —	FIC-2	FIC-2
Power Units Available —	3	3
Weapons And Firing Data:		
Beam Weapon Type —	FH-5	FH-5
Number —	6 in 3 banks	6 in 3 banks
Firing Arcs —	21/p, 21/s, 2a	21/p, 21/s, 2a
Firing Chart —	R	R
Maximum Power —	4	4
Damage Modifiers —		
+2	(1 - 8)	(1 - 8)
+1	(9 - 16)	(9 - 16)
Missile Weapon Type —		
Number —	FP-2	FP-2
Firing Arcs —	2	2
Firing Chart —	I	I
Power To Arm —	H	H
Damage —	1	1
	6	6
Shields Data:		
Deflector Shield Type —	FSF	FSF
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	8	8
Combat Efficiency:		
D —	62.9	88.9
WDF —	20.4	20.4

Genser Class IV Escort



Construction Data:

Model Numbers —	MK I	MK II
Date Entering Service —	2/1712	2/2210
Number Constructed —	251	12

Hull Data:

Superstructure Points —	13	14
Damage Chart —	C	C
Size		
Length —	180 m	180m
Width —	120 m	120 m
Height —	45 m	45 m
Weight —	33,200 mt	32,300 mt

Cargo

Cargo Units —	50 SCU	50 SCU
Cargo Capacity —	2,500 mt	2,500 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	M-1	M-1
Transporters —		
standard 6-person	2	2
emergency 22-person	1	2
cargo	1	1

Other Data:

Crew —	82	80
Passengers —	10	10
Shuttlecraft —	1	1

Engines And Power Data:

Total Power Units Available —	24	22
Movement Point Ratio —	3/1	2/1
Warp Engine Type —	FWH-1	FWA-2
Number —	2	2
Power Units Available —	10	8
Stress Charts —	O/R	J/M
Maximum Safe Cruising Speed —	Warp 5	Warp 6
Emergency Speed —	Warp 6	Warp 8
Impulse Engine Type —	FIB-2	FIB-3
Power Units Available —	4	6

Weapons And Firing Data:

Beam Weapon Type —	FH-6	FH-7
Number —	8 in 4 banks	8 in 4 banks
Firing Arcs —	2t/p, 2t/s, 2p/a, 2s/a	2t/p, 2t/s, 2p/a, 2s/a
Firing Chart —	N	Q
Maximum Power —	3	4
Damage Modifiers —		
+2	(1 - 7)	(1 - 8)
+1	(8 - 13)	(9 - 15)

Shields Data:

Deflector Shield Type —	FSF	FSF
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	13	13

Combat Efficiency:

D —	59.6	70
WDF —	18.4	25.6



Notes:

The *Genser* Class escort is not only the newest ship in Materiel Command's fleet of escorts, it is also the smallest. Like all escorts, it is inexpensive to build, maintain, and operate. The *Genser* is even cheaper to build and operate than earlier escorts because of its size and design simplicity.

Because the maneuverability of the Mk I was unacceptable for escort duties, the design was modified and FWA-2 warp engines were installed on four test models before being approved for installation on all *Gensers*. In addition, the weapon systems were upgraded from the FH-6 to the FH-7 phaser, creating the Mk II. All *Genser* Class ships will be converted to this design no later than Stardate 2/2404.

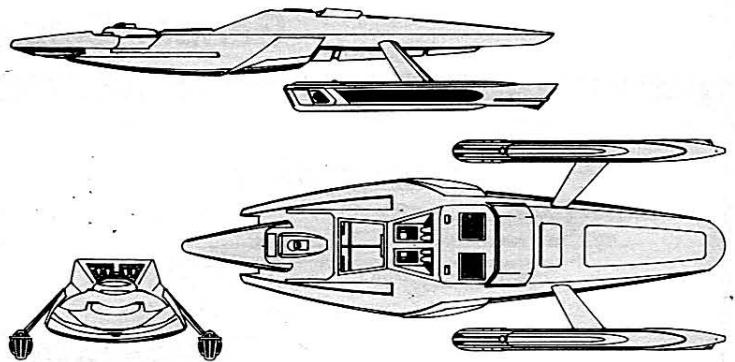
On Stardate 2/1912, the *USS Genser*, along with five other escorts, was accompanying a convoy of neutronic fuel carriers to the rimward frontier when sensors scanned a small object travelling on a parallel course. The object could not be identified through computer search nor would it respond to any radio communications. The *Genser* broke away from the convoy to investigate the object and, as the other ships watched, disappeared. After several minutes, the *Genser* reappeared, maintaining its last course and speed, though it did not respond to radio calls; the small, mysterious object was nowhere to be found. Sensor scan revealed that the entire crew of the *Genser* had disappeared. The convoy was halted and searches were made, but nothing was found that would help solve the mystery. The connection between the unidentified object and the disappearance of the ship remains clouded in mystery and may never be solved. The *USS Genser* is on active duty and operates in the rimward frontier areas.

Of the 259 *Genser* Class escorts built, 226 Mk Is and 12 Mk IIs remain in active service. One Mk I is used by Star Fleet Training Command, 16 have been destroyed; 2 are listed as missing; 1 has been scrapped; and 14 have been sold.

The *Genser* is produced at the Cait facility at a rate of 30 per year.

Griffon Class VIII Escort

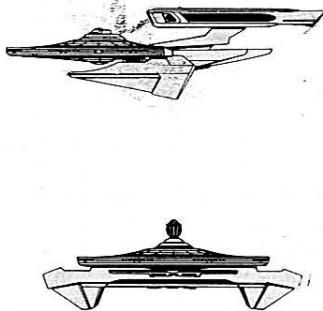
Construction Data:		
Model Numbers —	Mk I	Mk II
Date Entering Service —	2/1503	2/2008
Number Constructed —	208	28
Hull Data:		
Superstructure Points —	14	14
Damage Chart —	C	C
Size —		
Length —	220 m	220 m
Width —	85 m	85 m
Height —	40 m	40 m
Weight —	107,195 mt	107,450 mt
Cargo —		
Cargo Units —	50 SCU	50 SCU
Cargo Capacity —	2,500 mt	2,500 mt
Landing Capability —	None	None
Equipment Data:		
Control Computer Type —	M-2	M-2
Transporters —		
standard 6 person	3	3
emergency 22 person	2	2
cargo	1	1
Other Data:		
Crew —	146	148
Passengers —	10	10
Shuttlecraft —	2	2
Engines And Power Data:		
Total Power Units Available —	34	34
Movement Point Ratio —	3/1	3/1
Warp Engine Type —	FWE-2	FWE-2
Number —	2	2
Power Units Available —	13	13
Stress Charts —	G/K	G/K
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 9	Warp 9
Impulse Engine Type —	FIE-1	FIE-1
Power Units Available —	8	8
Weapons And Firing Data:		
Beam Weapon Type —	FH-4	FH-4
Number —	4 in 2 banks	4 in 2 banks
Firing Arcs —	21p, 29s	21p, 21s
Firing Chart —	Q	Q
Maximum Power —	3	3
Damage Modifiers —		
+2	(1 - 8)	(1 - 8)
+1	(9 - 14)	(9 - 14)
Missile Weapon Type —		
Number —	FP-2	FP-7
Firing Arcs —	2	2
Firing Chart —	11, 1a	11, 1a
Power To Arm —	H	R
Damage —	1	1
Shields Data:		
Deflector Shield Type —	FSH	FSK
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	12	16
Combat Efficiency:		
D —	66	72.0
WDF —	14.4	20.0



Notes:

Of the 236 *Griffon* Class escorts built, 177 Mk Is and 26 Mk IIs remain in active service, with 4 Mk Is in reserve fleets; 1 Mk II is used by Star Fleet Training Command; 20 Mk Is and 1 Mk II have been destroyed; 3 Mk IIs are listed as missing; 1 Mk I and 1 Mk II have been scrapped; and 2 Mk IIs have been sold to private commercial concerns.

The Mk I *Griffon* is no longer in production, but the Mk II is produced at the Morena facility at a rate of 24 per year.



Notes:

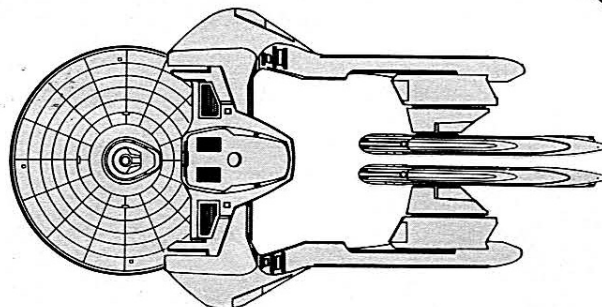
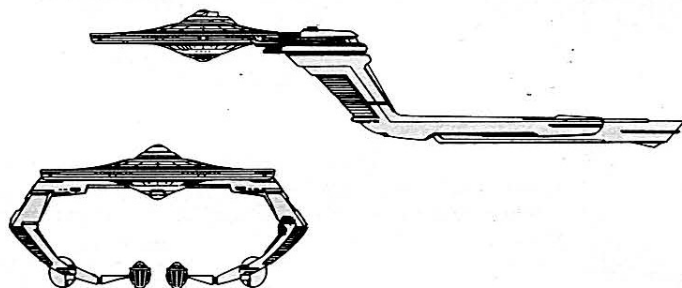
Of the 861 *Remoras* built, 175 Mk IIs and 205 Mk IIIs remain in active service, with 280 Mk IIs and 12 Mk IIIs in reserve fleets. Eight Mk IIs are used by Star Fleet Training Command; 102 Mk IIs and 20 Mk IIIs have been destroyed; 3 Mk IIs have been captured by the Klingons. Twelve Mk IIs are listed as missing, and 2 are likely to have been captured by the Romulans; 28 Mk IIs and 2 Mk IIIs have been scrapped; and 12 Mk IIs and 2 Mk IIIs have been sold to private commercial concerns.

Production of the Mk II has been halted, but the Mk IIIs are being produced at Sol VI at a rate of 32 per year.

Remora Class VI-VII Escort

Construction Data:		
Model Numbers —	Mk II	Mk III
Ship Class —	VI	VII
Date Entering Service —	2/0509	2/1601
Number Constructed —	620	241
Hull Data:		
Superstructure Points —	12	18
Damage Chart —	C	C
Size —		
Length —	210 m	210 m
Width —	170 m	170 m
Height —	60 m	60 m
Weight —	78,200 mt	88,450 mt
Cargo —		
Cargo Units —	100 SCU	100 SCU
Cargo Capacity —	5,000 mt	5,000 mt
Landing Capability —	None	None
Equipment Data:		
Control Computer Type —	M-2	M-2
Transporters —		
standard 6 person	3	3
emergency 22 person	2	2
cargo	1	1
Other Data:		
Crew —	162	162
Passengers —	20	20
Troops —	20	20
Shuttlecraft —	None	1
Engines And Power Data:		
Total Power Units Available —	22	28
Movement Point Ratio —	2/1	2/1
Warp Engine Type —	FWD-2	FWC-2
Number —	1	1
Power Units Available —	16	20
Stress Charts —	L/F	M/K
Maximum Safe Cruising Speed —	Warp 6	Warp 7
Emergency Speed —	Warp 8	Warp 9
Impulse Engine Type —	FIB-3	FIE-2
Power Units Available —	6	8
Weapons And Firing Data:		
Beam Weapon Type —	FH-4	FH-4
Number —	8 in 4 banks	8 in 4 banks
Firing Arcs —	21p, 2p/a, 21s, 2s/a	21p, 2p/a, 21s, 2s/a
Firing Chart —	Q	Q
Maximum Power —	3	3
Damage Modifiers —		
+2	(1 - 8)	(1 - 8)
+1	(9 - 14)	(9 - 15)
Shields Data:		
Deflector Shield Type —	FSF	FSH
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	10	13
Combat Efficiency:		
D —	62.2	80
WDF —	20.8	20.8

Northampton Class X Frigate



Construction Data:

Model Numbers —	MK I	MK III
Date Entering Service —	2/1905	2/2002
Number Constructed —	39	28

Hull Data:

Superstructure Points —	29	29
Damage Chart —	C	C
Size		
Length —	300 m	300 m
Width —	150 m	150 m
Height —	75 m	75 m
Weight —	154,600 mt	154,570 mt

Cargo

Cargo Units —	500 SCU	500 SCU
Cargo Capacity —	25,000 mt	25,000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	M-6	M-6
Transporters —		
standard 6-person	6	6
combat 20-person	4	4
cargo	2	2

Other Data:

Crew —	325	328
Troops —	220	220
Shuttlecraft —	6	6

Engines And Power Data:

Total Power Units Available —	56	56
Movement Point Ratio —	4/1	4/1
Warp Engine Type —	FWG-1	FWG-1
Number —	2	2
Power Units Available —	26	26
Stress Charts —	D/F	D/F
Maximum Safe Cruising Speed —	Warp 8	Warp 8
Emergency Speed —	Warp 10	Warp 10
Impulse Engine Type —	FID-2	FID-2
Power Units Available —	4	4

Weapons And Firing Data:

Beam Weapon Type —	FH-11	FH-11
Number —	6 in 3 banks	6 in 3 banks
Firing Arcs —	2p/a, 2f, 2s/a	2p/a, 2f, 2s/a
Firing Chart —	Y	Y
Maximum Power —	10	10
Damage Modifiers —		
+3	(1 - 10)	(1 - 10)
+2	(11 - 17)	(11 - 17)
+1	(18 - 24)	(18 - 24)

Missile Weapon Type —

Number —	3	3
Firing Arcs —	3f	3f
Firing Chart —	R	O
Power To Arm —	1	1
Damage —	8	12

Shields Data:

Deflector Shield Type —	FSO	FSO
Shield Point Ratio —	1/3	1/3
Maximum Shield Power —	16	16

Combat Efficiency:

D —	124.0	124.0
WDF —	78.6	84.3



Notes:

The *Northampton* Class frigate, stationed by Star Fleet in all sensitive areas to prevent aggression, enjoys the respect and admiration of its crews and troops. These ships have numerous recreation facilities and spacious quarters for the crewmembers and marines. Swimming pools, grav-ball courts, and physical fitness centers are all located in the lower hull adjacent to the shuttlebay and near the engineering section.

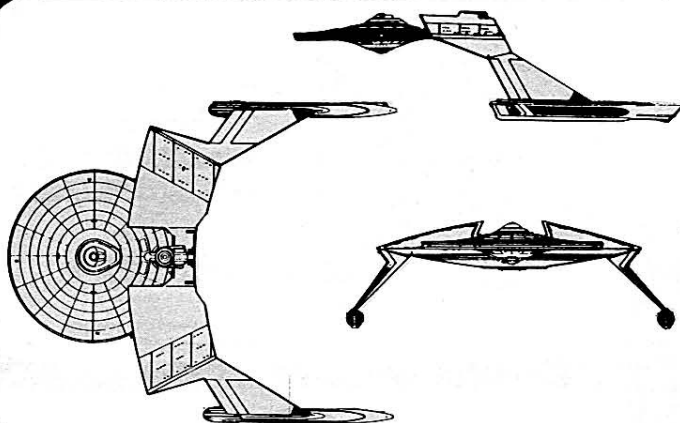
The *Northampton* mounts the most powerful of Star Fleet's engines, the FWG-1 warp engine, which allows it to reach trouble spots quickly. Although the hull design incorporates the single-engine lock found on several Andorian designs, the *Northampton* is a Martian design.

The weapons array is similar to that found on the *Chandley* Class frigates, though the arrangement is not the same. Both classes mount 6 FH-11 phasers, but the fields of fire are quite different, with the *Northampton* having better aft-firing capabilities and the *Chandley* having better forward-firing capabilities. Unlike the *Chandley*, the *Northampton* has concentrated all three of its torpedo tubes forward, which makes it offensively powerful.

Reports on the exploits of the *USS Bremerton* while in the Triangle have made quite a stir in military circles. After spending one year in the Triangle conducting business of an undisclosed nature, the *Bremerton* returned to Starbase 10 and reported that it had encountered both Romulan and Klingon ships, all of which it was forced to fight. Details of the encounters are still classified.

Of the 67 *Northampton*s built, 66 remain in active service and 1 is used by Star Fleet Intelligence. The *Northampton* is produced at the Sol IV shipyards at a rate of 20 per year.

Chandley Class XI Frigate



Construction Data:

Model Numbers —	MK I	MK III	MK IV
Date Entering Service —	2/1612	2/1902	2/1912
Number Constructed —	84	64	48
Hull Data:			
Superstructure Points —	28	28	28
Damage Chart —	C	C	C
Size:			
Length —	315 m	315 m	320 m
Width —	262 m	262 m	264 m
Height —	90 m	90 m	92 m
Weight —	173,300 mt	176,700 mt	177,500 mt
Cargo:			
Cargo Units —	825 SCU	850 SCU	850 SCU
Cargo Capacity —	41,250 mt	42,500 mt	42,500 mt

Equipment Data:

Control Computer Type —	M-6	M-6A	M-6A
Transporters —			
standard 6-person	8	8	8
combat 20-person	8	8	8
cargo	4	4	4

Other Data:

Crew —	363	370	370
Passengers —	10	10	10
Troops —	250	250	250
Shuttlecraft —	12	12	12

Engines And Power Data:

Total Power Units Available —	48	52	56
Movement Point Ratio —	3/1	3/1	3/1
Warp Engine Type —	FWC-1	FWC-1	FWC-1
Number —	2	2	2
Power Units Available —	16	16	16
Stress Charts —	O/M	O/M	O/M
Maximum Safe Cruising Speed —	Warp 7	Warp 7	Warp 7
Emergency Speed —	Warp 9	Warp 9	Warp 9
Impulse Engine Type —	FIF-2	FIF-3	FIG-1
Power Units Available —	16	20	24

Weapons And Firing Data:

Beam Weapon Type —	FH-11	FH-11	FH-11
Number —	6 in 3 banks	6 in 3 banks	6 in 3 banks
Firing Arcs —	21/p, 21, 21/s	21/p, 21, 21/s	21/p, 21, 21/s
Firing Chart —	Y	Y	Y
Maximum Power —	10	10	10
Damage Modifiers —			
+3	(1 - 10)	(1 - 10)	(1 - 10)
+2	(11 - 17)	(11 - 17)	(11 - 17)
+1	(18 - 24)	(18 - 24)	(18 - 24)
Missile Weapon Type —	FP-6	FP-5	FP-5
Number —	4	4	4
Firing Arcs —	21, 2a	21, 2a	21, 2s
Firing Chart —	O	R	R
Power To Arm —	1	1	1
Damage —	12	16	16

Shields Data:

Deflector Shield Type —	FSO	FSO	FSP
Shield Point Ratio —	1/3	1/3	1/4
Maximum Shield Power —	16	16	16

Combat Efficiency:

D —	131.5	137.5	170
WDF —	91	102.2	102.2



Notes:

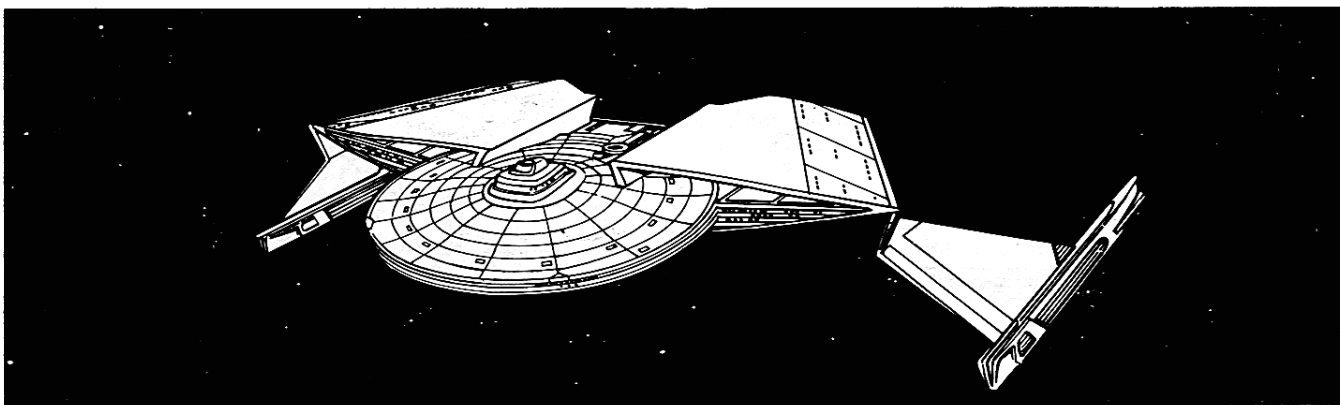
After the conclusion of the Four Years War, Star Fleet Command initiated the *Strategic Forces Survey* to evaluate every major operation of the war, from its conception to its final outcome. All aspects of these operations, starting with the initial planning stages, to the deployment of forces, their use during the operation, and the after-action requirements of those forces, were evaluated. The results of this survey have directly influenced plans made by Star Fleet Command ever since.

One of the weaknesses identified by the survey was that Star Fleet needed combat vessels carrying boarding parties or prize crews so that it could follow up a successful campaign with rapid and decisive blows against a retreating or routed enemy. Star Fleet warships did not carry marine assault teams, and, therefore, they were unable to board and capture enemy vessels or outposts. In many operations, Star Fleet vessels were held back so that their combined boarding groups could take control of disabled enemy vessels or outposts; this caused lengthy delays in follow-up operations and allowed the enemy to recover. To take enemy outposts, assault ships were called in, frequently a poor choice because they were slow, vulnerable, and usually carried too many troops for small operations. To solve this problem, Star Fleet began developing the frigate class of ships to carry marines trained to board hostile vessels and complexes. Of the several different ships with this design, the most impressive is the *USS Chandley Class* frigate.

On Stardate 2/1612, the *USS Chandley*, the first of this prestigious line of vessels, was commissioned. The *Chandley* not only met the requirements of being a deep-space fighting vessel but also could beam its 250 marines in less than four minutes. With this vessel, Star Fleet had the ability to follow up combat more efficiently.

The *Chandley's* large, winglike assembly houses the company of marines, their equipment, training areas, shuttlebay, and the combat transporters needed. The marines are billeted by platoons, with each platoon having its own spacious training, mess, dormitory, and recreation areas. The training areas, located in the central core of the wing structures, are made up of modules that may be positioned to resemble the interior of enemy ships and installations, allowing assault teams to familiarize themselves with their intended operation area; this training technique is largely responsible for the high success rate in boarding actions. The training areas are also used for physical training and firing ranges. Each platoon has a recreation area containing a swimming pool, gymnasium, gravball chamber, and complete health facilities; these facilities are largely responsible for the notable successes enjoyed by marine sports teams.

Since its inception, the *Chandley Class* frigate has used the older FWC-1 warp drive system, an engine proven to be highly reliable. Though many ship designers have wanted to put newer, more powerful warp systems on the *Chandleys*, each time the power systems have been upgraded, it has been through improvements to the impulse drive system. Warp drives larger than the FWC-1 are more costly to run and maintain, an important factor that must be considered because of the relatively great expense required to keep a company of marines aboard.



The *Chandley* Mk II design merely increased the size of the marines' storage cargo bays, but the Mk III changed the computer system, cargo bays, impulse drive system, and photon torpedo launchers. The computer was altered to the experimental M-6A for improved fire control, as the standard M-6 would not efficiently handle the increased capabilities of the FP-5 photon torpedo; the *Chandley* is the only class of ship in Star Fleet to possess this computer, as it has not been needed in other designs. The Mk IV design improved the shields; the earlier FSO shield generator was changed to the more efficient FSP. With this change, the *Chandley* Class frigate is one of the most powerful ships in known space. In all its modifications, it has gained a high level of respect from Romulan, Klingon, and Gorn commanders.

Historical Notes:

The *Chandley* is the only ship in Star Fleet named after the company that designed and built the class vessel. Actually, the company is owned by the descendants of Rear Admiral Thomas Chandley, one of the most-decorated naval heroes of Terran history. Chandley, an admiral in the U.S. Navy, is well known for his brilliant blockade of Soviet ports during the Aleutian Incident of 2003.

The first combat experience of any *Chandley* Class vessel was considered a total success. While patrolling in the Gorn Sector, the *USS Hanson* (NCC 2309), received a distress call from a commercial freighter stating it was under attack by unknown vessels. Upon reaching the coordinates given by the freighter, the *Hanson* encountered two Gorn cruisers involved in a boarding action against a *Liberty* Class freighter. When called upon to withdraw, the Gorn cruisers put up shields and opened fire. The *Hanson* made short work of the Gorn vessels, but the marine boarding parties found their task difficult at best, for they encountered Gorn marines who refused to give ground easily. Victory was won only after the Star Fleet marines gained access to the life support systems and shut them down. When the bridges of the Gorn vessels were entered, it was discovered that the entire bridge crew had committed suicide. Interrogation revealed that the ships had defected from the Gorn Alliance and were operating as renegades. The *Hanson's* marines sustained only three deaths and 17 casualties during this spirited action; all units involved received Commendations of Valor. This was the first time a Gorn ship had been boarded by Star Fleet personnel; much of the current knowledge about the Gorn Navy stems from this encounter.

In another incident, this one occurring Stardate 2/1910, the *USS Monson* (NCC 2392), on a fact-finding mission within the Triangle, was overtaken by four Klingon K-23 Class destroyers. At first, the Klingons merely scanned the *Monson* at a seemingly safe distance to its rear, but eventually two closed with the frigate, declared it had entered Klingon Imperial space, and demanded it heave to and prepare to be boarded. Finding himself well within the boundaries of the

Triangle, and realizing that the Klingon demands were the prelude to an unprovoked attack, the *Monson's* Captain immediately raised shields and warned the Klingons off. The Klingons attacked immediately, and the *Monson* returned fire. The *Monson's* aft torpedoes hit the bridge of the lead K-23, causing it to veer off course and into the path of the other oncoming vessels, whose fire crippled their comrade. Seeing this as an ill omen, the Klingons immediately departed the area, leaving the crippled ship behind. The *Monson* approached the Klingon, accepted its surrender, and beamed aboard two marine platoons before the Klingon ship exploded, killing all aboard. An after-action investigation revealed that an unidentified device in the engine room had been touched by an unsuspecting trooper, initiating a critical overload in the matter/anti-matter mix chamber. The explosion was of low yield and caused no damage to the *Monson*. The device that caused it has never been seen or reported since, and it is suspected by Star Fleet Intelligence to have been a jury-rigged self-destruct unit.

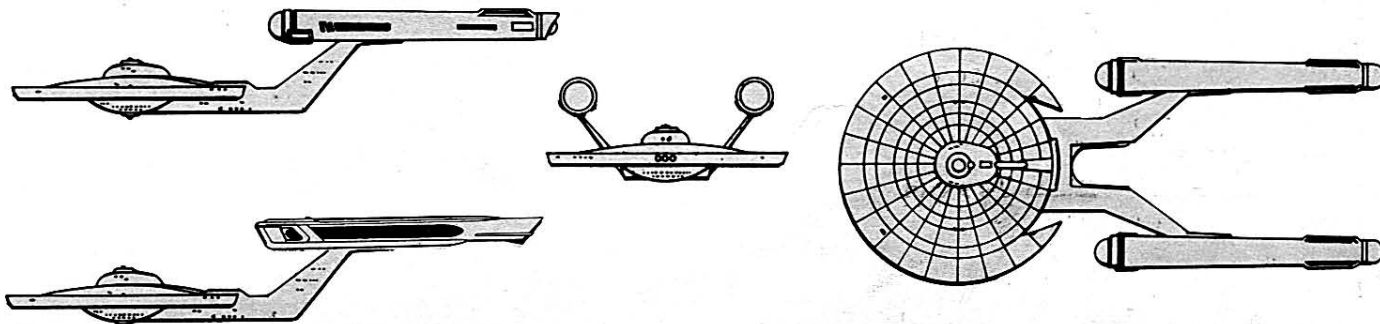
Because of this incident, Star Fleet policy states that before marines board any enemy vessel, a complete scan will be made of the vessel to determine if the destruct systems are in operation. Only if the scan results are negative will the boarding operation proceed. If the scan is positive, the enemy will be given the chance to disarm any such devices, and should they fail to do so promptly, the vessel is to be disabled and the crew subjected to intense phaser stun. Only then will engineers and UXB personnel beam aboard to disarm the device.

On Stardate 2/2005, one of the most-decorated frigates in Star Fleet, the *USS Blackheart* (NCC 2327), was reported missing while patrolling the Rimward Sector. A search was made, but all that was found was a communications buoy apparently discharged by the *Blackheart*. This buoy had only the partial message "...small object paralleling our course...no response on hailing freq..." The remainder of the tape was garbled, and portions had been intentionally erased. Star Fleet has no more information on the fate of the ship or its crew. The *Blackheart* is most remembered for the large black hearts painted on each of its lower wing assemblies; such painting is typical of *Chandley* Class ships, making them easily distinguished on visual scan. The practice is thought to keep the crew's pride in their vessel at a peak.

Of the 184 *Chandleys* built, 63 Mk Is, 64 Mk IIIs, and 47 Mk IVs remain in active service. Two Mk Is are used by Star Fleet Training Command; 4 Mk Is and 1 Mk IV have been destroyed; 1 Mk I is listed as missing; 1 Mk I has been scrapped, and 1 Mk I has been sold to the private sector.

The *Chandley* Class frigate is produced at the shipyards of Sol IV, Sol VI, and Andor at a rate of 4 Mk Is, 10 Mk IIIs, and 14 Mk IVs per year.

Loknar Class VIII-X Frigate



Construction Data:

Model Numbers —	MK-I	MK II	MK IV	MK V
Ship Class —	VII	VIII	IX	X
Date Entering Service —	1/9010-1/9912	1/9801-2/1502	2/1308	2/1709
Number Constructed —	48	42	86	42
Hull Data:				
Superstructure Points —	14	18	21	24
Damage Chart —	C	C	C	C
Size				
Length —	290 m	290 m	290 m	290 m
Width —	127 m	127 m	127 m	127 m
Height —	56 m	56 m	56 m	56 m
Weight —	109,000 mt	115,800 mt	140,400 mt	145,975 mt
Cargo				
Cargo Units —	260 SCU	280 SCU	280 SCU	280 SCU
Cargo Capacity —	13,000 mt	14,000 mt	14,000 mt	14,000 mt
Landing Capability —	None	None	None	None
Equipment Data:				
Control Computer Type —	M-2	M-2	M-3	M-3
Transporters —				
standard 6-person	3	3	3	3
emergency 22-person	1	1	1	1
cargo	1	1	1	1
Other Data:				
Crew —	76	79	84	84
Passengers —	4	4	4	4
Shuttlecraft —	2	2	2	2
Engines And Power Data:				
Total Power Units Available —	19	29	39	42
Movement Point Ratio —	3/1	3/1	2/1	2/1
Warp Engine Type —				
Number —	2	2	2	2
Power Units Available —	8	13	18	18
Stress Charts —	L/G	G/K	M/G	M/G
Maximum Safe Cruising Speed —	Warp 7	Warp 7	Warp 6	Warp 6
Emergency Speed —	Warp 9	Warp 9	Warp 8	Warp 8
Impulse Engine Type —				
Power Units Available —	3	3	3	6
Weapons And Firing Data:				
Beam Weapon Type —				
Number —	4	8 in 4 banks	8 in 4 banks	8 in 4 banks
Firing Arcs —	4p/f/s	2l/p, 2l/s, 4a	2l/p, 2l/s, 4a	2l/p, 2l/s, 4a
Firing Chart —	G	R	R	R
Maximum Power —	3	4	4	4
Damage Modifiers —				
+2		(1 - 8)	(1 - 8)	(1 - 8)
+1	(1 - 4)	(9 - 16)	(9 - 16)	(9 - 16)
Missile Weapon Type —				
Number —	1	4	4	4
Firing Arcs —	F	3f, 1a	3f, 1a	3f, 1a
Firing Chart —	G	D	L	O
Power To Arm —	4	1	1	1
Damage —	10	6	10	12
Shields Data:				
Deflector Shield Type —	FSH	FSK	FSK	FSK
Shield Point Ratio —	1/2	1/2	1/2	1/2
Maximum Shield Power —	12	16	15	15
Combat Efficiency:				
D —	65.0	76.7	76.7	114.3
WDF —	5.4	29.6	42.4	51.6

The *Loknar* Class frigates were built during "The Great Awakening", a period of expansion by the Federation. During this time, many research and exploration vessels were designed and built to aid in the efforts to solidify an enlarged and growing United Federation of Planets. Also during this period, a smaller number of warships were built. The *Loknar*, the most noted of these warships, is still in service to this day, a tribute to the quality of the Andorian design.

Soon after the Federation Appropriations Committee granted Star Fleet the funds necessary to construct fleets to expand and patrol the limits of the UFP, Andorian factions began pushing for warship construction. The basic Andorian philosophy was that, in expanding, the Federation might come upon races as hostile as the Romulans and Klingons, leading to another protracted war broke out for which the Federation and Star Fleet were unprepared. The Andorians argued that, were this to happen or were the Klingons or Romulans to escalate hostilities, Star Fleet needed to be better prepared and would need ships to protect the new borders and colonies. The Andorian arguments were successful, and Star Fleet began a limited build-up of warships. Several ship-building facilities were constructed by Andorian firms to design and manufacture these warships, the most notable of these on Sol IV and Salazaar, the largest and most productive in the Federation.

Introduced on Stardate 1/9010, the *Loknar* Class frigate mounted the new, but already proven, FWE-1 warp drive, in Star Fleet's inventory for only two years. The FIC-2 impulse engine was introduced on the *Loknar* and has since proven itself to be one of the most reliable of all production. The *Loknar* Mk I was considered a 'muscle' ship because of its four heavy lasers and single accelerator cannon, making it equal to all but the largest Klingon vessels and more powerful than any ship in the Romulan navy. In addition, the *Loknar* mounted FSH shield generators, more efficient than any used by the enemies of the Federation.

During the Four Years War, the *Loknar* saw more action than any other vessel in Star Fleet. Although it was considered to be successful, the Andorian designers felt a need to improve it. The FWE-2 warp drive systems, still being tested, would produce 60% more power than the FWE-1 and would increase the ship's overall performance. The Mk II was commissioned into service on Stardate 1/9801 mounting the FWE-2, even though this engine was not officially adopted by Star Fleet until Stardate 2/0002.

The most significant advance in starship technology came with the phaser and photon torpedo. The phaser delivers more firepower at longer ranges, weighs less, and requires less structural reinforcing than the laser. The newly developed photon torpedo delivered the same explosive power at 75% less power requirement, was considerably

lighter, and required less structural reinforcement than the accelerator cannon. Eight FH-5 phasers and four FP-3 torpedoes were incorporated into the Mk II, making it more powerful than anything in the Klingon fleet with the exception of the D-10. The Mk II also mounted an upgraded binary shield generator, the FSK, giving 33% more protection at the same output level as the earlier system.

The next major change in the *Loknar*'s design came with the introduction of the FWD-2 warp drive to the Mk IV. This increased the power output and overall performance by 40%. Furthermore, this model was modified to fire the FP-1 torpedo.

The Mk V is the latest model of the *Loknar* Class. This version mounts the FIC-3 impulse engine and FP-6 torpedoes.

Loknar Class frigates have served Star Fleet faithfully for 33 years and will remain in the inventory for many years to come. *Loknars* are produced at the Salazaar and Sol VI facilities at a rate of 2 ships per year, including refits. The current production rate is low due to the number of ships required and the high levels of reliability in existing ships.

Historical Notes:

The *Loknar* Class frigates are named after cities and provinces of the Federation. More than half of these vessels are crewed by Andorians and the majority of these are assigned to the 'Blue Fleet', ships whose officer contingent and crew are entirely Andorian. The *USS Loknar* was the first ship commissioned into the Blue Fleet, serving as the flagship for many years.

The infamous *IKSV Staav'eMara* (Slave Of Justice), was originally the *USS Morgan City*, a *Loknar* Class frigate captured by Admiral Kamato's forces during the Four Years War and later used in Kamato's abortive coup attempt on the Klingon throne. After failing, Kamato retreated into the Triangle, taking the *Loknar* Class frigate with him. From their location in the Triangle, the Klingon rebels began attacking unprotected convoys and merchant vessels by using the *Staav'eMara* to lure them in. This ruse lasted for several years, then a general recall of all *Loknar* Class vessels made it difficult for the Klingon vessel to operate as though it were from Star Fleet. The IKS Admiralty then decided to have the vessel painted in the standard steel-gray color of their Navy. The *Staav'eMara* still operates with the IKS Navy and has been seen as recently as Stardate 2/2301.

Disposition

The following list of *Loknar* Class frigates shows their hull numbers, name, model designation, date entering service, and current disposition. The disposition is represented by the letter codes given below and is followed by the date of occurrence.

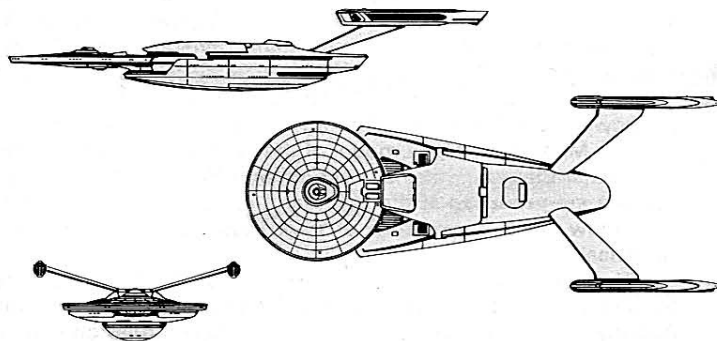
I	Inactive	L	Lost, whereabouts unknown.
D	Destroyed	R2	Refit to Mk II
CK	Captured in Four Years War	R4	Refit to Mk IV
DK	Destroyed in Four Years War	R5	Refit to Mk V
Sc	Scrapped	T	Used by Training Command

NCC 2700	Loknar	I	1/9010, R2 1/9807, R4 2/1406	NCC 2751	Izar	II	1/9802, R4 2/1501, R5 2/2002
NCC 2701	Ahkeil	I	1/9011, R2 1/9901, 12/1502	NCC 2752	Titan	II	1/9802, R4 2/1402, R5 2/1810
NCC 2702	Vernol	I	1/9101, DK 1/9412	NCC 2753	Rhea	II	1/9809, R4 2/1312
NCC 2703	Trantis	I	1/9104, R2 1/9810, 12/1502	NCC 2754	Helios	II	1/9811, 12/1410
NCC 2704	Morgan City	I	1/9107, CK 1/9409	NCC 2755	Capor Bana	II	1/9906, D 2/0305
NCC 2705	Farside	I	1/9201, R2 9906, 12/1502	NCC 2756	Houston	II	2/0003, R4 2/1403, R5 2/1710
NCC 2706	New America	I	1/9205, R2 2/0012, R4 2/1410	NCC 2757	Rio De Janiero	II	2/0102, R4 2/1312, R5 2/1906
NCC 2708	Kosk	I	1/9206, Sc 2/0012	NCC 2758	Lavinius	II	2/0111, L 2/0902
NCC 2709	Borga	I	1/9212, DK 1/9506	NCC 2759	Dallas	II	2/0301, R4 2/1408, R5 2/2110
NCC 2710	Peking	I	1/9304, R2 1/9804, Sc 2/1411	NCC 2760	Irlilia	II	2/0401, R4 2/1310, R5 2/2006
NCC 2711	Epcot	I	1/9306, R2 1/9812, R4 2/1406, R5 2/1808	NCC 2761	Karrik Al Van	II	2/0406, R4 2/1404, R5 2/1802
NCC 2712	Aldebaran	I	1/9310, R2 1/9904, D 2/0802	NCC 2762	Thefel	II	2/0603, R4 2/1408, R5 1712
NCC 2713	Proxima	I	1/9310, L 1/9711	NCC 2763	Ptarth	II	2/0712, 12/1502
NCC 2714	Antares	I	1/9402, Sc 2/0012	NCC 2764	Alpha Colony	II	2/0906, D 2/1408
NCC 2715	Argus City	I	1/9406, DK 1/9510	NCC 2765	Altair VI	II	2/1004, R4 2/1402
NCC 2716	New York	I	1/9409, DK 1/9510	NCC 2766	Ariannus	III	2/1212, R4 2/1502, R5 2/2001
NCC 2717	Boridi	I	1/9501, DK 1/9610	NCC 2767	Cairo	IV	2/1308, R5 2/1806
NCC 2718	Moscow	I	1/9504, R2 1/9803, R4 2/1312	NCC 2768	Coridan	IV	2/1308, R5 2/2006
NCC 2719	Tokyo	I	1/9508, D 1/9801	NCC 2769	Cygni Minor	IV	2/1312, R5 2/1901
NCC 2720	Corinth IV	I	1/9508, DL 1/9611	NCC 2770	Drox	IV	2/1402, R5 2/2101
NCC 2721	Daran V	I	1/9511, R2 1/9804, R4 2/1402	NCC 2771	Toronto	IV	2/1405, R5 2/2202
NCC 2722	Paris	I	1/9601, R2 2/0006, 12/1011	NCC 2772	Trifis	IV	2/1407, R5 2/1805
NCC 2723	Elas	I	1/9603, DK 1/9701	NCC 2773	Bondorant	IV	2/1410
NCC 2724	Troyius	I	1/9606, R2 2/0001, 12/1410	NCC 2774	Garros	IV	2/1410, R5 2/1712
NCC 2726	Rome	I	1/9609, R2 1/9804, R4 2/1501, D 2/1803	NCC 2775	Janus Colony	IV	2/1501, D 2/2201
NCC 2727	Los Angeles	I	1/9609, DK 1/9701	NCC 2776	lotia	IV	2/1412, R5 2/1910
NCC 2728	Ekos	I	1/9611, R2 1/9904, 12/1410	NCC 2777	Tryla	IV	2/1502, R5 2/2007
NCC 2729	Yonada	I	1/9611, DK 1/9704	NCC 2778	Vladivostok	IV	2/1503, R5 2/1911
NCC 2730	Makusia	I	1/9611, DK 1/9709	NCC 2779	Noma Ra Den	IV	2/1503, L 2/1902
NCC 2731	Berlin	I	1/9701, R2 1/9806, D 2/1203	NCC 2780	New Delphi	IV	2/1502, R5 2/1808
NCC 2732	Opkapi	I	1/9702, R2 9802, 12/1410	NCC 2781	Salos	IV	2/1508, R5 2/1910
NCC 2733	Aurelia	I	1/9705, DK 1/9712	NCC 2782	Thuphylla	IV	2/1511, R5 2/1902
NCC 2734	Carinae II	I	1/9705, DK 1/9801	NCC 2783	Molens	IV	2/1601, R5 2/2103
NCC 2735	Antos IV	I	1/9706, R2 2/0002	NCC 2784	Mantilles	IV	2/1606, R5 2/2202
NCC 2736	Arcannis	I	1/9706, DK 1/9711	NCC 2785	Sogon	IV	2/1610, R5 2/1710
NCC 2737	Mordensia	I	1/9706, R2 1/9901, 12/1502	NCC 2786	Phobos	IV	2/1701, R5 2/2204
NCC 2738	Chicago	I	1/9708, R2 2/0008, 12/1410	NCC 2787	Luna	IV	2/1709, R5 2/2006
NCC 2739	Deneb Clar	I	1/9709, DK 9801	NCC 2788	Johannesburg	IV	2/1709, R5 2/1812
NCC 2740	Gaikos	I	1/9710, L 1/9903	NCC 2789	Stockholm	IV	2/1803, R5 2/1909
NCC 2741	Sydney	I	1/9711, R2 1/9802, D 2/0505	NCC 2790	Fall Den	IV	2/1810
NCC 2742	Haik	I	1/9712, R2 1/9804, R4 2/1312, D 2/1803	NCC 2791	Que Dane	IV	2/1904, R5 2/2011
NCC 2743	Ilyra	I	1/9712, R2 1/9804, 12/1410	NCC 2793	Jeazar	V	2/1709
NCC 2744	Mjorn	I	1/9801, R2 1/9804, R4 2/1406, R5 2/1803	NCC 2794	Hobbiton	V	2/1806
NCC 2745	Alondra	I	1/9801, DK 1/9805	NCC 2795	Hong Kong	V	2/1811
NCC 2746	Carinae V	I	1/9803, R2 1/9812, 12/1502	NCC 2796	Caitos Prea	V	2/1903
NCC 2747	Argelia	I	1/9803, D 2/0004	NCC 2797	Mulandra	V	2/1905
NCC 2748	Lactra	II	1/9801, 12/1502	NCC 2798	Kism	V	2/1910
NCC 2749	London	II	1/9801, R4 2/1312, R5 2/1810	NCC 2799	Tog	V	2/2004
NCC 2750	Deneva Ra	II	1/9801, R4 2/1412, R5 2/1901				

Babcock Class XI Frigate

Construction Data:

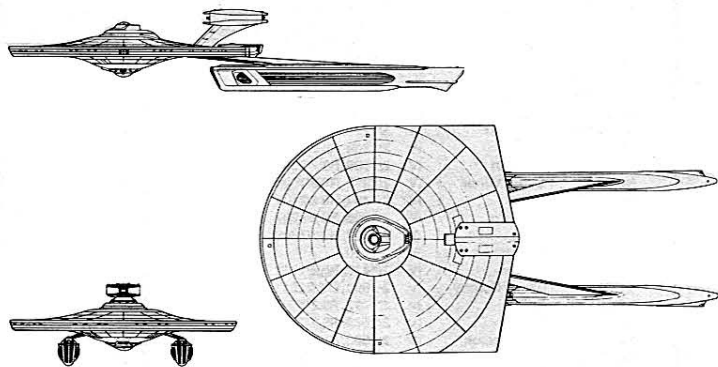
Model Numbers —	Mk II	Mk V
Date Entering Service —	2/1709	2/2002
Number Constructed —	92	48
Hull Data:		
Superstructure Points —	24	26
Damage Chart —	C	C
Size		
Length —	355 m	355 m
Width —	150 m	150 m
Height —	60 m	60 m
Weight —	170,900 mt	173,750 mt
Cargo		
Cargo Units —	600 SCU	600 SCU
Cargo Capacity —	30,000 mt	30,000 mt
Equipment Data:		
Control Computer Type —	M-4	M-4
Transporters —		
standard 6-person	8	8
combat 20-person	8	8
cargo	3	3
Other Data:		
Crew —	360	368
Passengers —	10	10
Troops —	250	250
Shuttlecraft —	8	8
Engines And Power Data:		
Total Power Units Available —	46	46
Movement Point Ratio —	4/1	4/1
Warp Engine Type —	FWF-1	FWF-1
Number —	2	2
Power Units Available —	20	20
Stress Charts —	G/L	G/L
Maximum Safe Cruising Speed —	Warp 6	Warp 6
Emergency Speed —	Warp 8	Warp 8
Impulse Engine Type —	FIC-3	FIC-3
Power Units Available —	6	6
Weapons And Firing Data:		
Beam Weapon Type —	FH-3	FH-9
Number —	6 in 3 banks	6 in 3 banks
Firing Arcs —	2Up, 2L, 2Ws	2Up, 2L, 2Ws
Firing Chart —	W	X
Maximum Power —	5	6
Damage Modifiers —		
+3	(1 - 10)	(1 - 12)
+2	(11 - 17)	(13 - 22)
+1	(18 - 20)	
Missile Weapon Type —	FP-6	FP-6
Number —	2	2
Firing Arcs —	11, 1a	11, 1a
Firing Chart —	0	0
Power To Arm —	1	1
Damage —	12	12
Shields Data:		
Deflector Shield Type —	FSP	FSP
Shield Point Ratio —	1/4	1/4
Maximum Shield Power —	16	16
Combat Efficiency:		
D —	130.3	133.2
WDF —	48.2	49.4



Notes:

Of the 140 *Babcock* Class frigates built, 84 Mk IIs and all 48 Vs remain in active service. One Mk II is used by Star Fleet Training Command, 6 Mk IIs have been destroyed, and 1 Mk II is listed as missing.

The *Babcock* is manufactured at the Morena and Merak facilities at a combined rate of 16 per year.



Notes:

Of the 84 *Kiev* Class frigates built, 68 remain in active service, 1 is used by Star Fleet Training Command; 12 have been destroyed; 1 is listed as missing; and 2 have been scrapped.

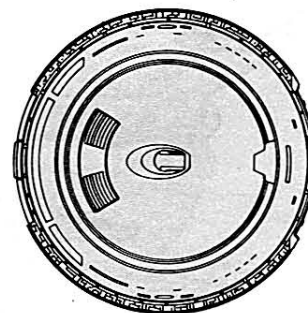
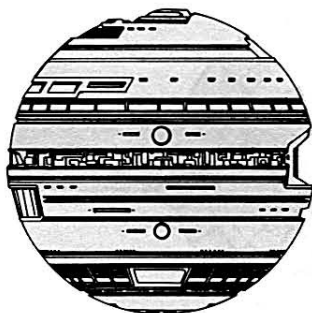
The *Kiev* is produced at the Salazaar and Merak shipyards at a combined rate of 14 per year.

Kiev Class XI Frigate

Construction Data:

Model Numbers —	Mk I
Date Entering Service —	2/1610
Number Constructed —	84
Hull Data:	
Superstructure Points —	24
Damage Chart —	C
Size	
Length —	280 m
Width —	140 m
Height —	50 m
Weight —	165,200 mt
Cargo	
Cargo Units —	150 SCU
Cargo Capacity —	7,500 mt
Landing Capability —	None
Equipment Data:	
Control Computer Type —	M-3
Transporters —	
standard 6-person	4
combat 20-person	3
cargo	2
Other Data:	
Crew —	300
Troops —	120
Shuttlecraft —	4
Engines And Power Data:	
Total Power Units Available —	44
Movement Point Ratio —	3/1
Warp Engine Type —	FWC-1
Number —	2
Power Units Available —	16
Stress Charts —	Q/M
Maximum Safe Cruising Speed —	Warp 7
Emergency Speed —	Warp 9
Impulse Engine Type —	FF-1
Power Units Available —	12
Weapons And Firing Data:	
Beam Weapon Type —	FH-8
Number —	6 in 3 banks
Firing Arcs —	2Up, 2Ls, 2a
Firing Chart —	T
Maximum Power —	5
Damage Modifiers —	
+2	(1 - 10)
+1	(11 - 18)
Missile Weapon Type —	FP-4
Number —	2
Firing Arcs —	11, 1a
Firing Chart —	S
Power To Arm —	1
Damage —	20
Shields Data:	
Deflector Shield Type —	FSL
Shield Point Ratio —	1/3
Maximum Shield Power —	14
Combat Efficiency:	
D —	119.8
WDF —	50.0

Fenlon Class V Monitor



Construction Data:

Model Numbers —	MK II	MK IV
Date Entering Service —	1/9701-2/1512	2/1010
Number Constructed —	620	587

Hull Data:

Superstructure Points —	14	14
Damage Chart —	C	C
Size		
Length —	120 m	120 m
Width —	120 m	120 m
Height —	120 m	120 m
Weight —	48,080 mt	48,335 mt

Cargo

Cargo Units —	100 SCU	100 SCU
Cargo Capacity —	5,000 mt	5,000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	M-1	M-1
Transporters —		
standard 6-person	3	3
combat 20-person	1	1
emergency 22-person	1	1
cargo	1	1

Other Data:

Crew —	72	76
Passengers —	20	20
Troops —	20	20
Shuttlecraft —	6	6

Engines And Power Data:

Total Power Units Available —	27	30
Movement Point Ratio —	2/1	2/1
Warp Engine Type —	FSLB	FSLB
Number —	2	2
Power Units Available —	12	12
Stress Charts —	L/P	L/P
Impulse Engine Type —	FIC-2	FIB-3
Power Units Available —	3	6

Weapons And Firing Data:

Beam Weapon Type —	FH-2	FH-4
Number —	10 in 5 banks	10 in 5 banks
Firing Arcs —	2f, 4p, 4s	2f, 4p, 4s
Firing Chart —	H	N
Maximum Power —	3	3
Damage Modifiers —		
+2		(1 - 8)
+1	(1 - 10)	(9 - 14)

Shields Data:

Deflector Shield Type —	FSD	FSF
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	8	12

Combat Efficiency:

D —	69.0	79.0
WDF —	13	26.0



Notes:

The *Fenlon* is the only monitor class in Star Fleet. Because ships of the monitor type generally are used to patrol and maintain order over subjugated worlds, the UFP has little need for a vessel of this type, except near the borders. These ships patrol border systems and protect them from marauders and pirates.

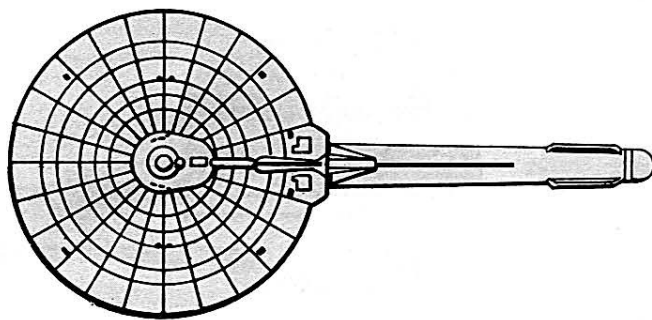
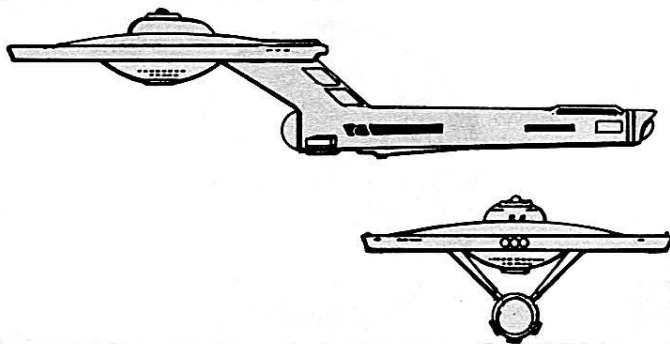
The spherical hull design is a drastic departure from normal Star Fleet designs. The engines are mounted centrally and are difficult to locate on a visual scan. The sub-light drive system is capable of moving the *Fenlons* at .9 warp for periods of up to 6 months. Of course, being stationed in-system or at a border outpost because their limited top speed limits their range, the monitors will seldom need this capability because they are always near their supply depots.

The *Fenlon* Class monitor is seldom found alone. Its primary function is to support the cutters that are operating in the area. It will act as a heavy support vessel when the cutters have encountered a ship that they cannot deal with alone. The *Fenlon*, with its 10 phasers, is an unwelcome sight to smugglers, pirates, and marauders.

Of the 876 *Fenlons* built, 334 Mk IIs and 130 Mk IVs remain in active service, with 110 Mk IIs and 42 Mk IVs in reserve fleets. One of each type is used by Star Fleet Training Command; 132 Mk IIs and 68 Mk IVs have been destroyed; 4 Mk IIs and 2 Mk IVs are listed as missing; 39 Mk IIs and 8 Mk IVs have been scrapped; and 4 Mk IIs and 1 Mk IV have been sold to private commercial concerns.

The *Fenlon* is produced at the Alpha Centauri shipyards at a rate of 2 per year.

Nelson Class VII Scout



Construction Data:

Model Numbers —	MK I	MK II	MK V	MK VII
Date Entering Service —	1/8804-2/0006	1/9702-2/1010	2/0806-2/1811	2/1602
Number Constructed —	84	118	114	112

Hull Data:

Superstructure Points —	10	11	12	13
Damage Chart —	C	C	C	C
Size				
Length —	263 m	263 m	263 m	270 m
Width —	127 m	127 m	127 m	127 m
Height —	61 m	61 m	61 m	61 m
Weight —	79,700 mt	80,600 mt	82,300 mt	85,600 mt

Cargo

Cargo Units —	45 SCU	45 SCU	45 SCU	45 SCU
Cargo Capacity —	2,250 mt	2,250 mt	2,250 mt	2,250 mt
Landing Capability —	None	None	None	None

Equipment Data:

Control Computer Type —	M-1	M-1	M-1	M-2
Transporters —				
standard 6-person	3	3	3	3
emergency 22-person	2	2	2	2
cargo	1	1	1	1

Other Data:

Crew —	176	180	184	190
Passengers —	10	10	10	10
Shuttlecraft —	1	1	1	1

Engines And Power Data:

Total Power Units Available —	18	20	26	28
Movement Point Ratio —	3/1	3/1	2/1	2/1
Warp Engine Type —	FWC-1	FWC-1	FWC-2	FWC-2
Number —	1	1	1	1
Power Units Available —	14	14	20	20
Stress Charts —	N/L	N/L	M/K	M/K
Maximum Safe Cruising Speed —	Warp 8	Warp 8	Warp 7	Warp 7
Emergency Speed —	Warp 10	Warp 10	Warp 9	Warp 9
Impulse Engine Type —	FIB-2	FIC-3	FIC-3	FIE-2
Power Units Available —	4	6	6	8

Weapons And Firing Data:

Beam Weapon Type —	FL-3	FH-2	FH-7	FH-8
Number —	2	2	2	3, 2 in 1 bank
Firing Arcs —	f	p/f/s	p/f/s	2l/p/s, 1a
Firing Chart —	G	H	Q	T
Maximum Power —	2	3	4	5
Damage Modifiers —				
+2			(1 - 8)	(1 - 10)
+1	(1 - 4)	(1 - 10)	(9 - 14)	(11 - 18)

Shields Data:

Deflector Shield Type —	FSG	FSF	FSH	FSN
Shield Point Ratio —	1/1	1/2	1/2	1/2
Maximum Shield Power —	10	10	13	16

Combat Efficiency:

D —	37.3	49.8	73.2	82.6
WDF —	1.4	2.6	6.4	12.9

"The Great Awakening" was responsible for the addition of many ships to Star Fleet, not the least of which was the *Nelson* Class scout. This vessel shares many design features with the *Constitution* Class cruisers and the *Larson* Class destroyers, though it is not intended to act as a warship. The primary mission of the *Nelson* is to explore and map uncharted areas of space, to observe new civilizations and cultures, and, in some cases, to make initial contact. This has made the *Nelson* Class scout responsible for more contacts with alien cultures than any other vessel class in Star Fleet.

When introduced on Stardate 1/8804, the *Nelson* was the most modern vessel in the Galaxy Exploration Command; it would prove to be one of the finest ships of its day. It mounted the powerful FWC-1 warp

engine and was capable of cruising at Warp 8 for up to two years at a time. The Mk I was not particularly maneuverable and relied on its emergency speed of Warp 10 to carry it to safety if it were attacked. Because of its mission, the Mk I mounted two forward-firing only, medium-power lasers, and the FSG shield generator, a single transducer system.

When phaser weapons were brought into the inventory, the Mk Is were refit as they returned from their missions. At this same time, the impulse engines were replaced with the FIC-3 system, increasing the power output by 10%. Experiences during the Four Years War dictated an upgrade to the FSG shield generator, its binary transducer giving the same protection at half the power expenditure. By Stardate 2/0006 all Mk Is had been refit to Mk IIs.

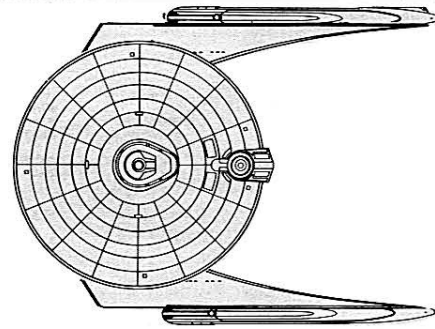
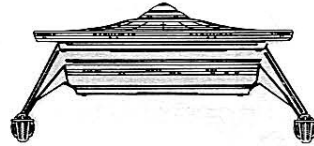
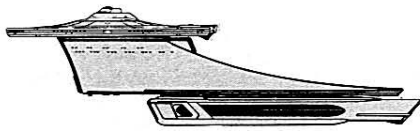
On Stardate 2/0801 Star Fleet passed down the order to refit the Mk II vessels to the Mk III by installing FWC-2 warp engines, FH-7 phasers, and FSH shield generators. The change in the main engines would increase the overall power output by 30% and the maneuverability by 50% at the expense of the cruising and emergency speeds. FSH shield generators were installed for more protection, and, as an added defensive element, FH-7 phasers replaced the FH-2s. On Stardate 2/0806 the first of the refit *Nelsons*, the *USS Sager*, was put into service. In all, 114 of the Mk IIIs would be commissioned before the introduction of the Mk Vs.

The Mk IV mounted the FIE-2 impulse drive system. Only two of this model, the *USS Moisanen* and *USS Manzer*, ever entered service. Prior to their completion, the Mk IV design was changed and all other vessels under construction were altered to conform to this change. The *Moisanen* and *Manzer* were refit to the Mk V model within two years after their entry into service.

The Mk V mounted the FH-8 phaser system and the FSN shield generators. A major change in the arrangement of the weapons was incorporated in the Mk V. The earlier models mounted two phasers with separate fire control systems, which meant that both could be fired independently but they required more space and operating personnel. In the Mk V, the phasers were put into a bank and a single phaser was added to cover the aft quadrant. The FH-8s, being more sophisticated and having a longer range, required the M-2 computer system. The FSN shield generators increased the shielding protection by 20%.

Of the 273 *Nelsons* built, 88 Mk Vs remain in active service, with 14 Mk IIs, 12 Mk IIIs, and 8 Mk Vs in reserve fleets. One Mk V is used by Star Fleet Training Command, and 32 Mk Is, 11 Mk IIs, 8 Mk IIIs, and 3 Mk Vs have been destroyed. Four Mk Is were captured by the Klingons during the Four Years War; 16 Mk Is, 6 Mk IIs, 2 Mk IIIs, and 1 Mk V have been listed as missing; 8 Mk Is, 10 Mk IIs, 22 Mk IIIs, and 9 Mk Vs have been scrapped; and 4 Mk Is, 4 Mk IIs, 8 Mk IIIs, and 2 Mk Vs have been sold to civilian commercial concerns.

Bader Class VIII Scout



BADER CLASS VIII SCOUT

Construction Data:

Model Numbers —	MK I	MK II	MK V
Date Entering Service —	2/1208-2 2004	2/1410	2/2202
Number Constructed —	81	135	16

Hull Data:

Superstructure Points —	16	16	16
Damage Chart —	C	C	C
Size			
Length —	232 m	232 m	232 m
Width —	180 m	180 m	180 m
Height —	80 m	80 m	80 m
Weight —	109,920 mt	110,100 mt	109,900 mt

Cargo

Cargo Units —	510 SCU	600 SCU	600 SCU
Cargo Capacity —	25,500 mt	30,000 mt	30,000 mt
Landing Capability —	None	None	None

Equipment Data:

Control Computer Type —	M-2	M-2	M-2
Transporters —			
standard 6-person	3	3	3
emergency 22-person	2	2	2
cargo - small	2	2	2
large	1	1	1

Other Data:

Crew —	160	166	166
Passengers —	30	30	30
Shuttlecraft —	4	4	4

Engines And Power Data:

Total Power Units Available —	30	34	38
Movement Point Ratio —	3/1	3/1	3/1
Warp Engine Type —	FWE-2	FWE-2	FWE-2
Number —	2	2	2
Power Units Available —	13	13	13
Stress Charts —	G/K	G/K	G/K
Maximum Safe Cruising Speed —	Warp 7	Warp 7	Warp 7
Emergency Speed —	Warp 9	Warp 9	Warp 9
Impulse Engine Type —	FID-2	FIE-2	FIF-2
Power Units Available —	4	8	12

Weapons And Firing Data:

Beam Weapon Type —	FH-4	FH-7	FH-12
Number —	4 in 2 banks	4 in 2 banks	4 in 2 banks
Firing Arcs —	21/p, 21/s	21/p, 21/s	21/p, 21/s
Firing Chart —	Q	Q	R
Maximum Power —	3	4	6
Damage Modifiers —			
+2	(1 - 8)	(1 - 8)	(1 - 9)
+1	(9 - 14)	(9 - 14)	(10 - 16)

Shields Data:

Deflector Shield Type —	FSH	FSH	FSH
Shield Point Ratio —	1/2	1/2	1/2
Maximum Shield Power —	12	12	12

Combat Efficiency:

D —	68.9	72.9	76.9
WDF —	10.2	12.8	19.9



Notes:

Shortly after the Organian Treaty had been imposed, Star Fleet began a buildup of its research ships. Contracts were let out for ships with limited combat ability and extensive research facilities. The most famous of those commissioned was the *Bader*. Although classified and armed as a scout because of its military role, it was in all respects a research vessel. The research facilities aboard the *Bader* were the most extensive of any on a Star Fleet vessel until the *Gagarin* Class research vessel entered service.

The *USS Bader*, *USS Clifton*, and *USS Tombaugh* are the research vessels awarded to the winner of the coveted Sagan Award for research contributing to the advancement of Federation science. Every year, each of the three research teams that win the award is given one of these vessels for two years, fully equipped to perform whatever studies and research the teams wish. This has made the *Bader* Class a popular and easily-recognized vessel throughout the scientific community.

In its military role, the *Bader* is not quite as exciting. The warp engines are not as efficient as those mounted on other scouts, and the vessels are not as maneuverable. Due to the displacement of the *Bader*, this deficiency cannot be corrected. Attempts have been made to increase the impulse drive power, but even this has not brought the performance level up to that of other scouts. Furthermore, compared to other scout vessels, the *Bader* is undergunned, mounting only 4 phasers. The *Bader* is the only modern scout that does not mount photon torpedo tubes. For these reasons, the *Bader* is not popular among the crews assigned to the borders of the other major powers.

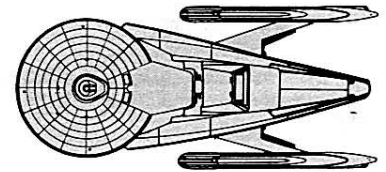
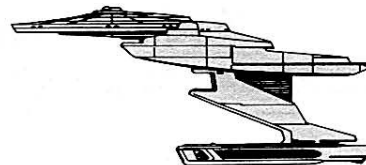
Of the 164 *Baders* built, 117 Mk IIs and 15 Vs remain in active service, with 4 Mk IIs in reserve fleets. Five Mk Is, 6 Mk IIs, and 1 Mk V have been destroyed; 4 Mk Is and 2 Mk IIs are listed as missing; 2 Mk IIs have been scrapped; and 4 Mk Is and 2 Mk IIs have been sold to private commercial concerns.

The *Bader* is produced at the Sol V shipyards at a combined rate of 4 per year.

Keith Class VI Scout

Construction Data:

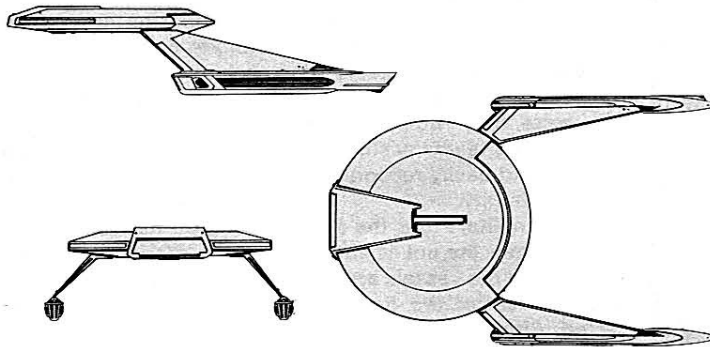
Model Numbers —	Mk I	Mk III
Date Entering Service —	2/0405-2/2001	2/1603
Number Constructed —	172	61
Hull Data:		
Superstructure Points —	14	15
Damage Chart —	C	C
Size:		
Length —	180 m	180 m
Width —	80 m	80 m
Height —	80 m	80 m
Weight —	61,595 mt	63,535 mt
Cargo:		
Cargo Units —	400 SCU	400 SCU
Cargo Capacity —	20,000 mt	20,000 mt
Landing Capability —	None	None
Equipment Data:		
Control Computer Type —	M-1	M-1
Transporters —	3	3
standard 6-person	1	1
emergency 22-person	2	2
cargo - small	1	1
large	1	1
Other Data:		
Crew —	96	100
Troops —	20	20
Shuttlecraft —	2	2
Engines And Power Data:		
Total Power Units Available —	30	34
Movement Point Ratio —	2/1	2/1
Warp Engine Type —	FWB-2	FWB-2
Number —	2	2
Power Units Available —	14	14
Stress Charts —	M/O	M/O
Impulse Engine Type —	FIB-1	FIB-3
Power Units Available —	2	6
Weapons And Firing Data:		
Beam Weapon Type —	FH-6	FH-4
Number —	4 in 2 banks	4 in 2 banks
Firing Arcs —	2Vp, 2Vs	2Vp, 2Vs
Firing Chart —	N	O
Maximum Power —	3	3
Damage Modifiers —		
+2	(1 - 7)	(1 - 8)
+1	(8 - 13)	(9 - 14)
Missile Weapon Type —	FP-2	FP-1
Number —	1	1
Firing Arcs —	H	L
Firing Chart —	H	L
Power To Arm —	1	1
Damage —	6	10
Shields Data:		
Deflector Shield Type —	FSD	FSF
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	7	10
Combat Efficiency:		
D —	76.0	83.5
WDF —	11.2	14.8



Notes:

Of the 202 *Keith* Class scouts built, 54 Mk IIIs remain in active service, with 101 Mk Is in reserve fleets. One Mk III is used by Star Fleet Training Command; 16 Mk Is and 4 Mk IIIs have been destroyed; 8 Mk Is and 2 Mk IIIs are listed as missing (both Mk IIIs in the Triangle area); 12 Mk Is have been scrapped; and 4 Mk Is have been sold to civilian commercial concerns.

The *Keith* Class scouts are produced at the Salazaar and Proxima Centauri shipyards at a combined rate of 8 per year.



Notes:

Of the 159 *Rangers* built, 12 Mk Is, 31 Mk IIs, and 52 Mk IIIs remain in active service, with 2 Mk Is and 2 Mk IIs in reserve fleets. Two Mk IIs and 1 Mk III are used by Star Fleet Training Command; 26 Mk Is, 8 Mk IIs, and 1 Mk III have been destroyed; 2 Mk Is and 1 Mk II are listed as missing; 1 Mk I and 12 Mk IIs have been scrapped; and 6 Mk Is and 1 Mk II have been sold to civilian commercial concerns.

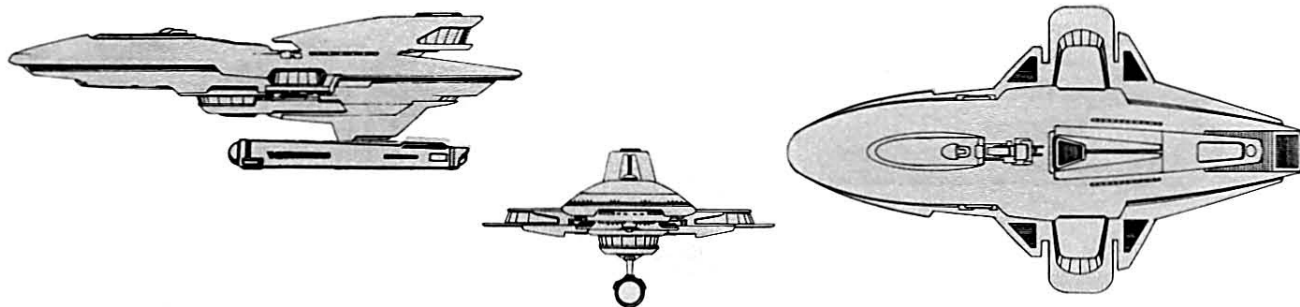
The *Ranger* is produced at the Sol IV and Morena facilities at a combined rate of 8 per year.

Ranger Class V-VI Scout

Construction Data:

Model Numbers —	Mk I	Mk II	Mk III
Date Entering Service —	2/1203	2/1710	2/2001
Number Constructed —	102	108	54
Hull Data:			
Superstructure Points —	10	12	14
Damage Chart —	C	C	C
Size:			
Length —	87 m	87 m	87 m
Width —	57 m	57 m	57 m
Height —	21 m	21 m	21 m
Weight —	55,285 mt	59,145 mt	63,325 mt
Cargo:			
Cargo Units —	20 SCU	20 SCU	20 SCU
Cargo Capacity —	1,000 mt	1,000 mt	1,000 mt
Landing Capability —	None	None	None
Equipment Data:			
Control Computer Type —	M-1	M-2	M-2
Transporters —			
standard 6-person	2	2	2
emergency 22-person	1	1	1
Other Data:			
Crew —	73	77	77
Troops —	6	6	6
Shuttlecraft —	2	2	2
Engines And Power Data:			
Total Power Units Available —	32	34	34
Movement Point Ratio —	2/1	2/1	2/1
Warp Engine Type —	FWB-2	FWB-2	FWB-2
Number —	2	2	2
Power Units Available —	14	14	14
Stress Charts —	M/O	M/O	M/O
Maximum Safe Cruising Speed —	Warp 8	Warp 8	Warp 8
Emergency Speed —	Warp 9	Warp 9	Warp 9
Impulse Engine Type —	FIB-2	FIB-3	FIB-3
Power Units Available —	4	6	6
Weapons And Firing Data:			
Beam Weapon Type —	FH-2	FH-6	FH-7
Number —	2	4 in 2 banks	4 in 2 banks
Firing Arcs —	2Hs	2Hs, 2Vs	2Hs, 2Vs
Firing Chart —	H	N	O
Maximum Power —	3	3	4
Damage Modifiers —			
+2	(1 - 10)	(1 - 7)	(1 - 8)
+1	(11 - 15)	(8 - 13)	(9 - 15)
Missile Weapon Type —	FP-3	FP-7	FP-7
Number —	2	2	2
Firing Arcs —	11, 1a	11, 1a	11, 1a
Firing Chart —	O	H	R
Power To Arm —	1	1	1
Damage —	6	6	8
Shields Data:			
Deflector Shield Type —	FSF	FSH	FSH
Shield Point Ratio —	1/2	1/2	1/2
Maximum Shield Power —	12	14	13
Combat Efficiency:			
D —	74.3	80.2	81.0
WDF —	5.0	14.0	22.4

Cochrane Class VI Colonial Transport



Construction Data:

Model Numbers —	MK I	MK II
Date Entering Service —	1/9010-2/0802	2/0311
Number Constructed —	206	162

Hull Data:

Superstructure Points —	13	13
Damage Chart —	C	C
Size		
Length —	370 m	370 m
Width —	210 m	210 m
Height —	110 m	110 m
Weight —	61,415 mt	61,150 mt

Cargo

Cargo Units —	4,800 SCU	4,800 SCU
Cargo Capacity —	240,000 mt	240,000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	L-13	L-13
Transporters —		
standard 6-person	10	10
emergency 22-person	8	8
cargo - small	8	8
large	4	4

Other Data:

Crew —	36	38
Troops —	2,400	2,400
Shuttlecraft —	22	22

Engines And Power Data:

Total Power Units Available —	10	10
Movement Point Ratio —		
unloaded	2/1	2/1
loaded	5/1	5/1
Warp Engine Type —	FWE-1	FWE-1
Number —	1	1
Power Units Available —	8	8
Stress Charts —	F/I	F/I
Maximum Safe Cruising Speed —		

unloaded	Warp 7	Warp 7
loaded	Warp 5	Warp 5

Emergency Speed —		
unloaded	Warp 9	Warp 9
loaded	Warp 6	Warp 6

Impulse Engine Type —	FIB-1	FIB-1
Power Units Available —	2	2

Weapons And Firing Data:

Beam Weapon Type —	FL-1	FH-1
Number —	2	2
Firing Arcs —	2W/p/s	2I/p/s
Firing Chart —	D	F
Maximum Power —	2	2

Shields Data:

Deflector Shield Type —	FSG	FSF
Shield Point Ratio —	1/1	1/2
Maximum Shield Power —	12	12

Combat Efficiency:

D —		
unloaded	41.8	47.0
loaded	37.4	38.2
WDF —	.8	1.0



Notes:

The *Cochrane* Class ships are used by Star Fleet Colonial Operations Command to transport Federation colonists to new unexplored worlds. Each vessel has the capacity to carry up to 2,400 passengers and their necessities. These ships travel in large groups and are always escorted by the ships of Military Command.

When a new, undeveloped world has been charted and readied for colonization, *Cochranes* are prepared and colonists recruited. The number of ships used depends on the size of the world to be settled and the rate of development required by the UFP Council. The largest colonial convoy to date has been the Star's End settlement of Stardate 2/0310, in which 42 *Cochranes* were used. They carried over 100,000 colonists and were accompanied by freighters and transports carrying over 10,000,000 mt of supplies and building materials.

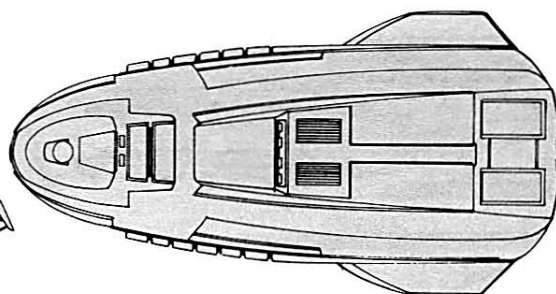
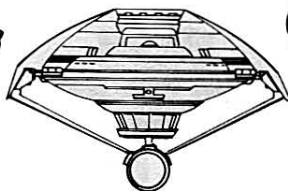
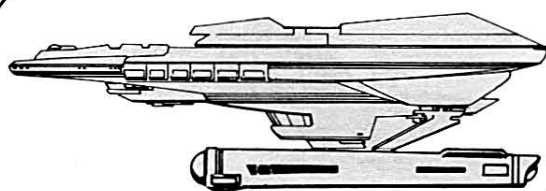
Cochranes are armed only as a protective measure. The weapons have never been used on any of these ships, largely because they are always accompanied by armed escorts.

On Stardate 2/0904, six *Cochranes* and their escorts disappeared while enroute to New Deimos. These vessels have never been found and are listed as missing. The colonial expedition consisted of 13,200 colonists and 1,250 Star Fleet officers and men. Many people have speculated that the Gorn were responsible, but no evidence has surfaced to bear this out.

Of the 308 *Cochranes* built, 120 Mk IIs remain in active service, with 58 Mk Is and 12 Mk IIs in reserve fleets ready to be recalled when the need arises. Of the remainder, 6 Mk Is and 2 Mk IIs have been destroyed; 6 Mk Is are listed as missing; 12 Mk Is and 2 Mk IIs have been scrapped; and 64 Mk Is and 26 Mk IIs have been sold to civilian commercial concerns.

The *Cochrane*, once actively produced at the Sol V facility, is no longer in production.

Aakenn Class VI Freighter



Construction Data:

Model Numbers —	MK II	MK IV
Date Entering Service —	1/9610	2/0312
Number Constructed —	672	760

Hull Data:

Superstructure Points —	10	10
Damage Chart —	C	C
Size		
Length —	190 m	190 m
Width —	100 m	100 m
Height —	60 m	60 m
Weight —	70,640 mt	71,010 mt

Cargo

Cargo Units —	2,180 SCU	2,780 SCU
Cargo Capacity —	109,000 mt	139,000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	M-2	M-3
Transporters —		
standard 6-person	2	2
cargo - small	4	4
large	4	4

Other Data:

Crew —	54	58
Passengers —	6	6
Shuttlecraft —	6	6

Engines And Power Data:

Total Power Units Available —	13	19
Movement Point Ratio —		

unloaded	2/1	2/1
loaded	4/1	5/1

Warp Engine Type —	FWD-1	FWD-2
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Number —	1	1
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Power Units Available —	10	16
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Stress Charts —	K/F	U/F
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Maximum Safe Cruising Speed —		
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unloaded	Warp 7	Warp 6
loaded	Warp 6	Warp 4

Emergency Speed —		
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unloaded	Warp 9	Warp 8
loaded	Warp 7	Warp 6

Impulse Engine Type —	FIC-2	FIC-2
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Power Units Available —	3	3
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Weapons And Firing Data:

Beam Weapon Type —	FL-3	FH-2
Number —	2	2
Firing Arcs —	11/p/s, 1a/p/s	11/p/s, 1a/p/s
Firing Chart —	G	H
Maximum Power —	2	3
Damage Modifiers —		
+1	(1 - 4)	(1 - 10)

Shields Data:

Deflector Shield Type —	FSF	FSH
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	10	13

Combat Efficiency:

D —		
unloaded	46.9	60.3
loaded	37.3	44.3
WDF —	1.4	2.6



Notes:

The *Aakenn* Class freighter entered service during the Four Years War, during which the class was used to move men and materiel to the front and supplies to the rear to keep the Federation's wartime production at high levels. Presently, this freighter is a common sight on the spacelanes, with thousands in commercial service. Star Fleet uses its more than 100,000 mt of capacity to move all sorts of materials to the outer reaches of the Federation; because the vessel is not landing-capable, all cargo must be containerized and beamed aboard using the vessel's 8 cargo transporters. As an added feature, the *Aakenn* has staterooms for up to 6 passengers; these small rooms, though not designed for luxurious travel, are reasonably comfortable.

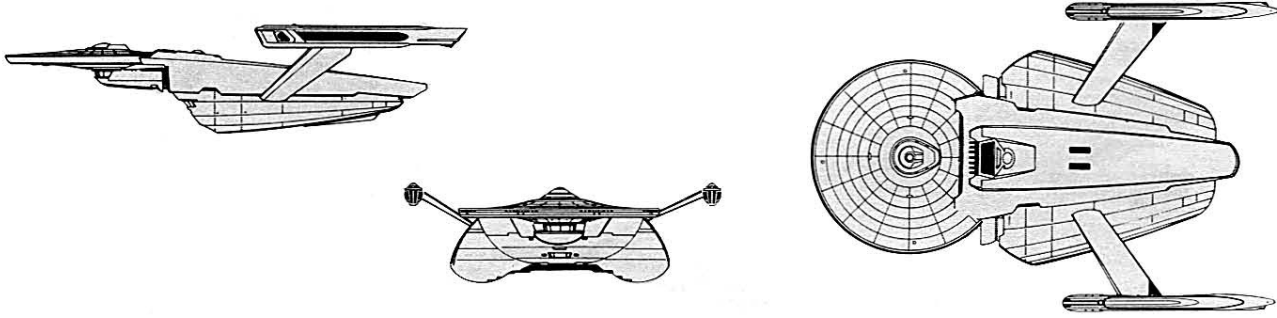
On Stardate 2/1309, the *USS Mundy*, was found adrift near Starbase 21. The vessel's onboard life support systems were operating, but there were no crewmembers aboard. The bridge area showed signs of a struggle, but nearly all computer files had been lost and there was no recorded data to reveal what had happened. The last entry in the Captain's Log, from about four months earlier, made no mention of any emergency or possible danger. When the cargo hold was breached, it was found to contain millions of live Tribbles, living on the food produced by a synthesizer that had somehow been left on.

The "Tribble Ship", as it came to be called, was taken into Starbase 21 where it was learned that it had been stolen two years earlier. This mystery remained unsolved until Stardate 2/2205, when two of its crewmembers were found in a nearby asteroid cluster, somehow having been missed when the search parties checked the area for survivors. They revealed that they had been boarded by a band of renegade Klingons, who, when they discovered that the cargo was Tribbles, became so infuriated that they killed the captain and officers and left the crewmen on the asteroid.

Of the 1432 *Aakenn* Class freighters built, 244 Mk IIs and 760 Mk IVs remain in active service and 12 Mk IIs are in reserve fleets. One Mk II and 4 Mk IVs are used by Star Fleet Training Command; 186 Mk IIs and 102 Mk IVs have been destroyed; 17 Mk IIs and 8 Mk IVs are listed as missing; 119 Mk IIs and 71 Mk IVs have been scrapped; and 93 Mk IIs and 32 Mk IVs have been sold to commercial enterprises.

The *Aakenn* Mk IV is manufactured at the Tellar, Proxima Centauri, and Cait facilities at a combined rate of 30 per year.

Liberty Class VII Freighter



Construction Data:

Model Numbers —	MK I	MK III
Date Entering Service —	1/8806	2/0609
Number Constructed —	648	612

Hull Data:

Superstructure Points —	10	11
Damage Chart —	C	C
Size		
Length —	240 m	240 m
Width —	160 m	160 m
Height —	50 m	50 m
Weight —	98,585 mt	99,690 mt

Cargo

Cargo Units —	7,030 SCU	10,000 SCU
Cargo Capacity —	351,500 mt	500,000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	M-1	M-2
Transporters —		
standard 6-person	2	2
cargo - small	6	6
large	4	4

Other Data:

Crew —	70	72
Passengers —	20	20
Shuttlecraft —	8	8

Engines And Power Data:

Total Power Units Available —	22	32
Movement Point Ratio —		
unloaded	3/1	3/1
loaded	7/1	7/1
Warp Engine Type —	FWE-1	FWE-2
Number —	2	2
Power Units Available —	8	13
Stress Charts —	G/K	G/K
Maximum Safe Cruising Speed —		
unloaded	Warp 7	Warp 7
loaded	Warp 4	Warp 4
Emergency Speed —		
unloaded	Warp 9	Warp 9
loaded	Warp 5	Warp 5
Impulse Engine Type —	FIB-3	FIC-3
Power Units Available —	6	6

Weapons And Firing Data:

Beam Weapon Type —	FL-2	FH-2
Number —	2	2
Firing Arcs —	1/s, 1a/p	1/s, 1a/s
Firing Chart —	F	H
Maximum Power —	2	3
Damage Modifiers —	+1	(1 - 10)

Shields Data:

Deflector Shield Type —	FSG	FSH
Shield Point Ratio —	1/1	1/2
Maximum Shield Power —	10	13

Combat Efficiency:

D —		
unloaded	38.6	49.2
loaded	34.5	52.3
WDF —	1.2	2.6



Notes:

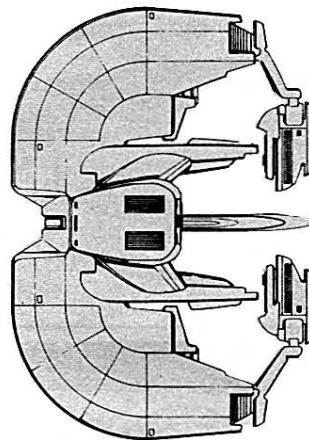
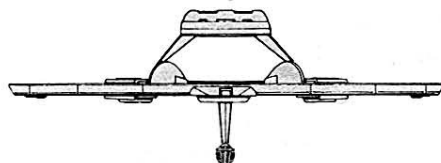
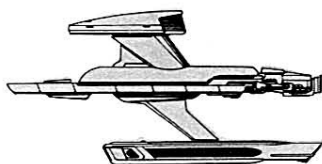
The *Liberty Class* freighters have been in the service of Star Fleet since Stardate 1/8806. For 35 years, these ships have plied the spacelanes, carrying untold quantities of goods and materials to all corners of the Federation. More than any other ship, the *Liberty Class* ships symbolize the UFP's commercial advance into known space.

These freighters were used extensively during the Four Years War to carry supplies into forward areas. For such missions, they were armed to help in protecting the convoys from Klingon ambush, but their light weapons were of little use against the sophisticated weapons of the Klingons. On one occasion, a convoy made up of 20 *Liberties* was attacked by a small group of Klingon ships. They managed to drive off the Klingons, destroying one with a loss of only two vessels.

Of the 1260 *Liberty Class* freighters built, 161 Mk Is and 492 Mk IIIs remain in active service, with 68 Mk Is and 10 Mk IIIs in reserve fleets. Four Mk IIIs are used by Star Fleet Training Command; 188 Mk Is and 51 Mk IIIs have been destroyed; 24 Mk Is have been captured by the Klingons; 33 Mk Is and 9 Mk IIIs are listed as missing; 126 Mk Is and 18 Mk IIIs have been scrapped; and 48 Mk Is and 28 Mk IIIs have been sold.

Production of the Mk I was halted on Stardate 2/1203. The Mk III is produced at the Tellar, Cait, Morena, and Sol II facilities. The combined annual production rate is 32.

Kethkin Class IX Transport



Construction Data:

Model Numbers — MK II
Date Entering Service — 2/1801
Number Constructed — 128

Hull Data:

Superstructure Points — 12
Damage Chart — C
Size
Length — 120 m
Width — 170 m
Height — 60 m
Weight — 124,300 mt

Cargo

Cargo Units — 6,500 SCU
Cargo Capacity — 325,000 mt
Landing Capability — None

Equipment Data:

Control Computer Type — M-6
Transporters — standard 6-person
2

Other Data:

Crew — 34
Passengers — 10
Shuttlecraft — 6

Engines And Power Data:

Total Power Units Available — 56
Movement Point Ratio —
unloaded 4/1
loaded 7/1
Warp Engine Type — FWG-1
Number — 2
Power Units Available — 26
Stress Charts — D/F
Maximum Safe Cruising Speed —
unloaded Warp 8
loaded Warp 5
Emergency Speed —
unloaded Warp 10
loaded Warp 7
Impulse Engine Type — FID-2
Power Units Available — 4

Shields Data:

Deflector Shield Type — FSF
Shield Point Ratio — 1/2
Maximum Shield Power — 8

Combat Efficiency:

D —
unloaded 68.2
loaded 52.4
WDF — 0



Notes:

The *Kethkin* tugs, which trail their cargo pods in two rows behind them, have an overall cargo capacity of more than 325,000 mt (6,500 SCU). When loaded to this capacity, these transports are sluggish and unmaneuverable.

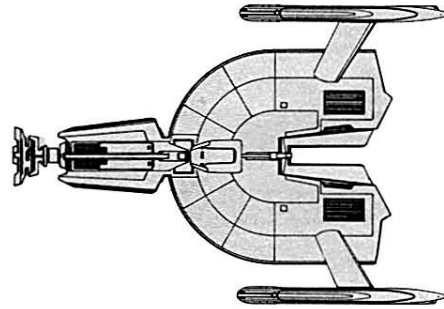
To aid them in maneuvering during cargo pick-up or drop-off, the *Kethkins* carry 6 specially-designed craft called 'mules'. These little vessels push the pods into position for loading or move them away during unloading operations.

Of the 128 *Kethkins* built, 124 remain in active service. One is used by Star Fleet Training Command; 1 has been destroyed; 1 is listed as missing; and 1 has been scrapped due to structural damage suffered during loading operations.

The *Kethkin* is manufactured at the Tellar, Cait, Salazaar, and Sol VI facilities. The combined rate of production is 28 per year. This vessel is commercially available.



MoKal Class X Transport



Construction Data:

Model Numbers —	MK I	MK II
Date Entering Service —	2/0804	2/1611
Number Constructed —	234	126

Hull Data:

Superstructure Points —	13	13
Damage Chart —	C	C
Size		
Length —	140 m	140 m
Width —	100 m	100 m
Height —	20 m	20 m
Weight —	145,200 mt	141,900 mt

Cargo

Cargo Units —	5,100 SCU	11,000 SCU
Cargo Capacity —	255,000 mt	550,000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	M-4	M-4
Transporters —		
standard 6-person	1	1

Other Data:

Crew —	28	30
Passengers —	6	6
Shuttlecraft —	4	4

Engines And Power Data:

Total Power Units Available —	44	48
Movement Point Ratio —		
unloaded	4/1	4/1
loaded	6/1	6/1
Warp Engine Type —	FWF-1	FWG-2
Number —	2	2
Power Units Available —	20	22
Stress Charts —	G/L	H/K
Maximum Safe Cruising Speed —		
unloaded	Warp 6	Warp 8
loaded	Warp 5	Warp 6
Emergency Speed —		
unloaded	Warp 8	Warp 9
loaded	Warp 6	Warp 7
Impulse Engine Type —	FID-2	FID-2
Power Units Available —	4	4

Shields Data:

Deflector Shield Type —	FSB	FSF
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	4	8

Combat Efficiency:

D —		
unloaded	59.2	62.2
loaded	49.2	48.8
WDF —	0	0



Notes:

The *MoKal* Class, the oldest of all Star Fleet's transport vessels, is designed to push its cargo pods from behind. The *MoKal* is used by Star Fleet throughout Federation space, and is operated by civilian concerns in all of known space.

On Stardate 2/0804, the Mk I was commissioned into service; although it does not have the cargo capacity of later models, it is still in production because of its reliability and the need for moving cargoes in its particular tonnage range. The Mk I is used commercially by many corporations and transfer companies. On Stardate 2/1611, the Mk II was commissioned into service. This version of the *MoKal* is capable of transporting over 550,000 mt (11,000 SCU), an increase of 110% over the capacity of the Mk I.

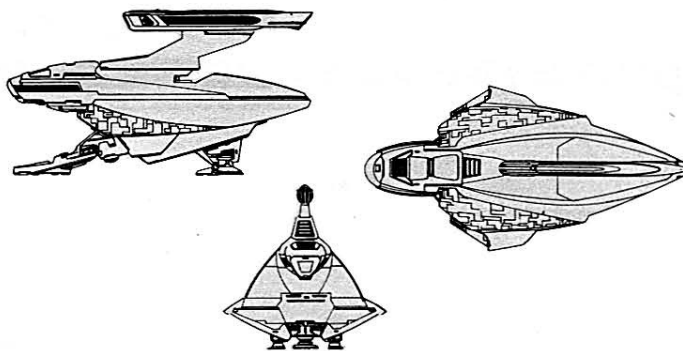
Of the 360 *MoKals* built, 178 Mk Is and 113 Mk IIs are in active service, with 6 Mk Is in reserve fleets. One Mk I and 1 Mk II are used by Star Fleet Training Command; 21 Mk Is and 6 Mk IIs have been destroyed; 2 Mk Is are listed as missing; 20 Mk Is and 4 Mk IIs have been scrapped; and 6 Mk Is and 2 Mk IIs have been sold to civilian commercial concerns.

The *MoKal* is produced at the Sol V, Sol VI, and Morena facilities. The combined annual production rate is 18 of each model.

Greyhound Class I Warpsuttle/Courier

Construction Data:

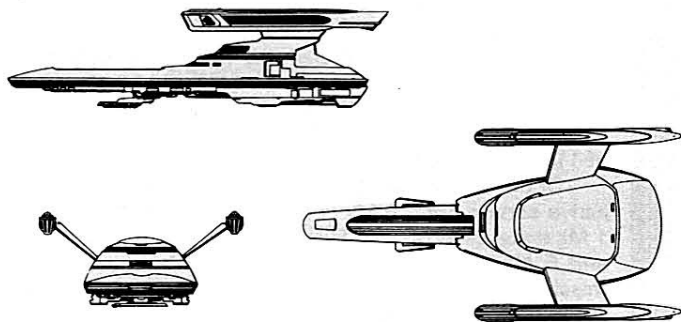
Model Numbers —	Mk I	Mk IV
Date Entering Service —	2/1612	2/2009
Number Constructed —	1422	488
Hull Data:		
Superstructure Points —	1	1
Damage Chart —	C	C
Size —		
Length —	32 m	34 m
Width —	16 m	16 m
Height —	16 m	16 m
Weight —	4,210 mt	4210 mt
Cargo —		
Cargo Units —	4 SCU	16 SCU
Cargo Capacity —	200 mt	800 mt
Landing Capability —	Yes	Yes
Equipment Data:		
Control Computer Type —	L-12	L-12
Transporters —		
standard 3 person	1	1
Other Data:		
Crew —	2	2
Passengers —	12	6
Engines And Power Data:		
Total Power Units Available —	7	7
Movement Point Ratio —	1/4	1/4
Warp Engine Type —	FWA-1	FWA-1
Number —	1	1
Power Units Available —	6	6
Stress Charts —	F/G	F/G
Maximum Safe Cruising Speed —	Warp 8	Warp 8
Emergency Speed —	Warp 10	Warp 10
Impulse Engine Type —	FIA-1	FIA-1
Power Units Available —	1	1
Shields Data:		
Deflector Shield Type —	FSA	FSA
Shield Point Ratio —	1/1	1/1
Maximum Shield Power —	12	12
Combat Efficiency:		
D —	57.0	57.0
WDF —	0	0



Notes:

Of the 1910 *Greyhound* Class warpsuttles built, 1342 Mk Is and 456 Mk IVs remain in active service; 40 Mk Is and 20 Mk IVs are used by Star Fleet Training Command; 28 Mk Is and 8 Mk IVs have been destroyed; 4 Mk Is and 4 Mk IVs are listed as missing; 2 Mk Is have been scrapped; and 6 Mk Is have been sold to civilian commercial concerns. The Mk IV is used commercially by Universal Parcel Service and is a very common sight around spaceports.

Greyhound Class vessels are produced at the Sol II, Sol VI, Andor, Tellar, Cait, Salazaar, and Merak shipyards. The combined production rate is 170 Mk Is and 160 Mk IVs per year.



Notes:

Of the 1692 *Pulsar* Class warpsuttles built, 1459 Mk Is and 159 Mk IIs remain in active service. Of the remainder, 40 Mk Is and 6 Mk IIs are used by Star Fleet Training Command, 18 Mk Is have been destroyed, 2 Mk Is and 1 Mk II are listed as missing, 4 Mk Is have been scrapped, and 3 Mk Is have been sold to private individuals. This Warpsuttle is also commercially available and is used by several transit companies, most notably the Galactic Trailways Corporation.

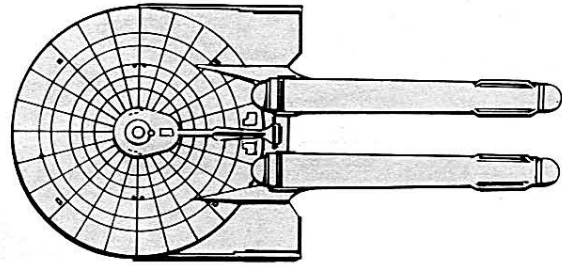
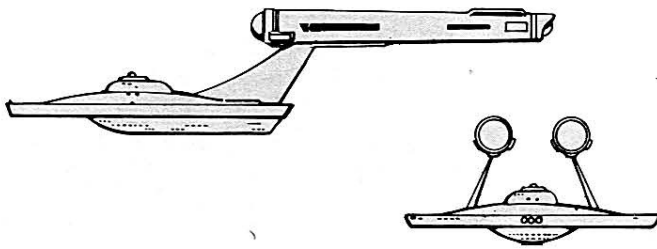
The *Pulsar* is manufactured at the Sol II, Sol III, Sol V, Alpha Centauri, and Morena facilities. The combined production rate is currently 185 Mk Is and 22 Mk IIs per year.

Pulsar Class II Warpsuttle

Construction Data:

Model Numbers —	Mk I	Mk II
Date Entering Service —	2/1608	2/1702
Number Constructed —	1530	166
Hull Data:		
Superstructure Points —	2	3
Damage Chart —	C	C
Size —		
Length —	40 m	40 m
Width —	21 m	21 m
Height —	9 m	9 m
Weight —	9,175 mt	9,675 mt
Cargo —		
Cargo Units —	15 SCU	20 SCU
Cargo Capacity —	650 mt	1000 mt
Landing Capability —	Yes	Yes
Equipment Data:		
Control Computer Type —	L-14	L-14
Transporters —		
standard 6 person	1	1
Other Data:		
Crew —	2	3
Passengers —	16	10
Engines And Power Data:		
Total Power Units Available —	14	14
Movement Point Ratio —	1/1	1/1
Warp Engine Type —	FWA-1	FWA-1
Number —	2	2
Power Units Available —	6	6
Stress Charts —	G/K	G/K
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 9	Warp 9
Impulse Engine Type —	FIA-2	FIA-2
Power Units Available —	2	2
Weapons And Firing Data:		
Beam Weapon Type —		FH-1
Number —		2
Firing Arcs —		100°/s, 1a/p/s
Firing Chart —		F
Maximum Power —		2
Shields Data:		
Deflector Shield Type —	FSD	FSD
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	12	12
Combat Efficiency:		
D —	59.8	59.8
WDF —	0	1.0

Derf Class Mk IX Tender



Construction Data:

Model Numbers —	MK I	MK III	MK IV
Date Entering Service —	1/9807	2/0403	2/1811
Number Constructed —	180	396	71

Hull Data:

Superstructure Points —	14	14	17
Damage Chart —	C	C	C
Size			
Length —	274 m	274 m	274 m
Width —	128 m	128 m	128 m
Height —	65 m	65 m	65 m
Weight —	126,860 mt	127,820 mt	133,120 mt

Cargo

Cargo Units —	350 SCU	350 SCU	350 SCU
Cargo Capacity —	17,500 mt	17,500 mt	17,500 mt
Landing Capability —	None	None	None

Equipment Data:

Control Computer Type —	M-2	M-3	M-3
Transporters —			
standard 6-person cargo	2	2	2
	1	1	1

Other Data:

Crew —	72	72	72
Passengers —			10
Shuttlecraft —	7	7	5

Engines And Power Data:

Total Power Units Available —	27	40	40
Movement Point Ratio —	3/1	2/1	2/1
Warp Engine Type —	FWD-1	FWD-2	FWD-2
Number —	2	2	2
Power Units Available —	12	18	18
Stress Charts —	L/G	M/G	M/G
Maximum Safe Cruising Speed —	Warp 7	Warp 6	Warp 6
Emergency Speed —	Warp 9	Warp 8	Warp 8
Impulse Engine Type —	FIC-2	FID-2	FID-2
Power Units Available —	3	4	4

Weapons And Firing Data:

Beam Weapon Type —	FH-4	FH-4	FH-4
Number —	4 in 2 banks	4 in 2 banks	6 in 2 banks
Firing Arcs —	2t/p, 2t/s	2t/p, 2t/s	2t/p, 2t/s, 2a
Firing Chart —	Q	Q	Q
Maximum Power —	3	3	3
Damage Modifiers —			
+2	(1 - 8)	(1 - 8)	(1 - 8)
+1	(9 - 14)	(9 - 14)	(9 - 14)

Shields Data:

Deflector Shield Type —	FSH	FSH	FSI
Shield Point Ratio —	1/2	1/2	1/3
Maximum Shield Power —	12	12	12

Combat Efficiency:

D —	64.0	92.0	102.0
WDF —	10.4	10.4	15.6



Notes:

The *Derf* Class tender has been operational in Star Fleet for more than 25 years. When it entered service on Stardate 1/9807, the *Derf* Class marked a new concept in navigational beacon repair. Before its introduction, marker buoys and navigational beacons had to be retrieved and returned to a repair facility to be serviced. *Derf* Class tenders eliminated this need because they carried repair facilities onboard.

When a *Derf* arrives at a malfunctioning beacon's location, a shuttle uses a tractor beam on the beacon and tows it into the lower hull, which is the tender's main repair facility. The beacon is then placed on an assembly line and repaired robotically. When the work is finished, the shuttle tows the beacon back into the spacelanes, and the *Derf* moves on.

Although the *Derf* is not designed as a fighting vessel, it is capable of aggressive defense. Most repair missions take place along the borders between the major powers, where the chances of encountering enemy ships is very high. Because of this high risk, the *Derf* is armed with medium-range phasers.

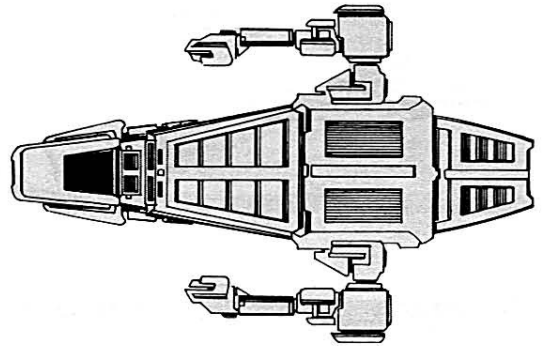
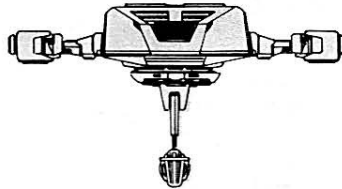
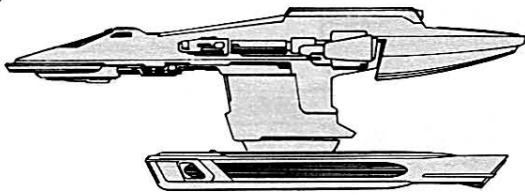
This protection does not prevent them from falling prey to enemy ships. On Stardate 2/0702, the *USS Acropolis* responded to signals from a malfunctioning marker buoy. As its shuttle neared the beacon, a Klingon warship appeared and opened fire before defensive action could be taken. The volley crippled the *Acropolis'* engines, and the tender was boarded and towed into Klingon territory.

Intelligence later discovered that the beacon had been planted by Klingon operatives to entrap the repair tender. It is theorized that the Klingons gained technical information concerning robotics and repair techniques that they lacked, but it is not known just what gain this action brought them in the overall situation. Some analysts believe that study of the robotic repair systems will make it possible for Klingons to alter the functioning of navigation beacons robotically, creating potential havoc in border spacelanes.

Of the 545 *Derfs* built, 16 Mk Is, 362 Mk IIIs, and 68 Mk IVs remain in active service, and 38 Mk Is and 17 Mk IIIs are in reserve fleets. Two Mk Is and 2 Mk IIIs are used by Star Fleet Training Command; 12 Mk Is, 8 Mk IIIs, and 1 Mk IV have been destroyed; 1 Mk III has been captured by the Klingons; 1 Mk I and 3 Mk IIIs are listed as missing; 4 Mk Is, 4 Mk IIIs, and 2 Mk IVs have been scrapped; and 2 Mk Is have been sold to the private sector.

The *Derf* Class is built at Merak. The rate of production is 4 per year.

Cle Dan Class VI Repair Tender



Construction Data:

Model Numbers —	MK1
Date Entering Service —	2/1110
Number Constructed —	160

Hull Data:

Superstructure Points —	7
Damage Chart —	B
Size	
Length —	100 m
Width —	65 m
Height —	35 m
Weight —	73,795 mt

Cargo

Cargo Units —	400 SCU
Cargo Capacity —	20,000 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	M-1
Transporters —	
standard 6-person	1
cargo - small	1
large	1

Other Data:

Crew —	24
Shuttlecraft —	4

Engines And Power Data:

Total Power Units Available —	23
Movement Point Ratio —	2/1
Warp Engine Type —	FWC-2
Number —	1
Power Units Available —	20
Stress Charts —	M/K
Maximum Safe Cruising Speed —	Warp 7
Emergency Speed —	Warp 9
Impulse Engine Type —	FIC-2
Power Units Available —	3

Shields Data:

Deflector Shield Type —	FSB
Shield Point Ratio —	1/2
Maximum Shield Power —	6

Combat Efficiency:

D —	52.0
WDF —	0



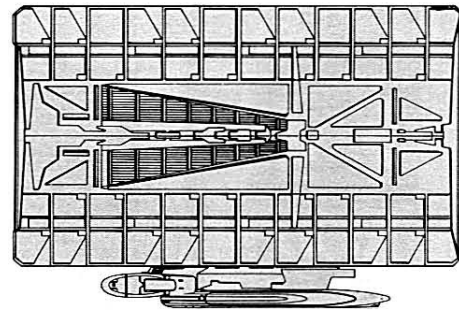
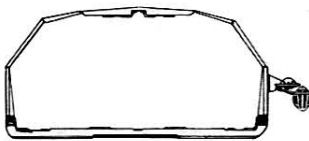
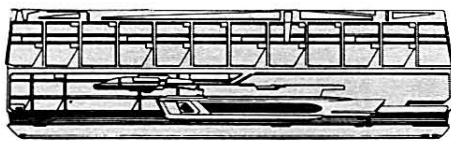
Notes:

The *Cle Dan* Class repair tender was designed to travel in the forward units of Star Fleet and give battlegroups a rapid repair capability. These tenders are able to repair minor damage, but, if the parts are available, they can even repair and replace warp engines. *Cle Dan* Class tenders frequently operate further forward than the *Pearl* Class mobile repair facilities, but they also are commonly found working alongside the latter. *Cle Dan* Class tenders come under the command of the OIC of Fleet Repairs, usually stationed in a *Pearl* Class facility. In extreme emergencies, however, the OIC has taken command on a *Cle Dan* itself, if the repair job is a critical one and his presence is needed at a remote location.

The repair tender uses two very large retractable arms to manipulate large parts into position. These arms can be remote-controlled from within the main hull, or they can be operated from a small station located near the end of the arm. In addition to the manipulator arms, the tenders also carry four work shuttles.

The *Cle Dan* Class is produced at the Sol III and Salazaar facilities at a rate of four per year. Of the 160 *Cle Dants* built, 136 remain in active service; 2 are used by Star Fleet Training Command; 14 have been destroyed; 1 has been captured by the Romulans; 2 are listed as missing; and 3 have been scrapped; and 2 have been sold to commercial concerns, 1 of which operates in the Triangle.

Pearl Class VII Mobile Repair Facility



Construction Data:

Model Numbers —	MK I
Date Entering Service —	2/1212
Number Constructed —	140

Hull Data:

Superstructure Points —	12
Damage Chart —	B
Size	
Length —	360 m
Width —	200 m
Height —	85 m
Weight —	79,445 mt

Cargo

Cargo Units —	700 SCU
Cargo Capacity —	35,000 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	L-14
Transporters —	
standard 6-person	2
emergency 22-person	2
cargo - small	2
large	2

Other Data:

Crew —	220
Passengers —	140
Shuttlecraft —	18

Engines And Power Data:

Total Power Units Available —	16
Movement Point Ratio —	3/1
Warp Engine Type —	FWD-1
Number —	1
Power Units Available —	10
Stress Charts —	K/F
Maximum Safe Cruising Speed —	Warp 6
Emergency Speed —	Warp 8
Impulse Engine Type —	FIC-3
Power Units Available —	6

Shields Data:

Deflector Shield Type —	FSB
Shield Point Ratio —	1/2
Maximum Shield Power —	5

Combat Efficiency:

D —	40.2
WDF —	0



Notes:

The first *Pearl* Class mobile repair facility was commissioned on Stardate 2/1212 to replace the *Newport News* Class facility, which was not capable of rapid deployment or housing larger ships. Unlike the older facility, the *Pearl* facility was designed to travel under its own power at Warp 6 and has enough internal bay capacity to hold no fewer than two of the *Constitution* Class cruisers. This makes it an asset in forward military operations.

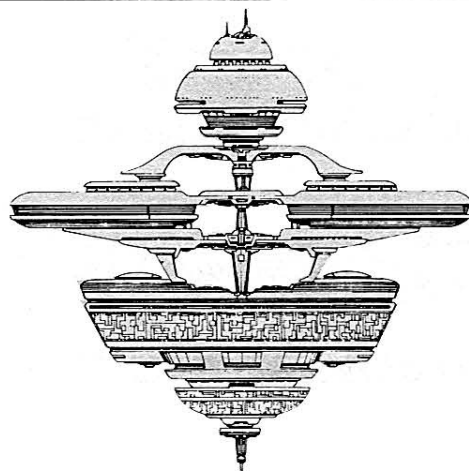
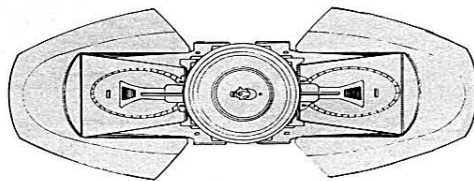
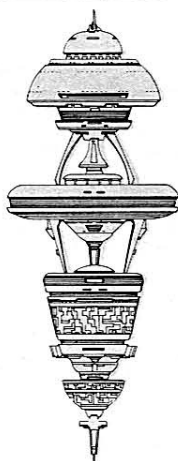
Pearl repair facilities are an integral part of all Star Fleets and accompany them at all times. They are the lifeline of the fleet during combat, for they keep all ships operational. This ability was used to advantage and was decisive in the Four Years War, in which *Newport News* facilities were towed close to the front. Once in position there, they were able to keep the ships of Star Fleet in constant repair, whereas the Klingons possessed no such facility until after the war. Nevertheless, the Klingons actually launched the first truly mobile repair facility, the *S-8*, on Stardate 2/1208; it was this model that inspired the *Pearl* Class.

The repair facility has the ability to actually manufacture almost all components needed to keep the warships in repair. With limited onboard space, the repair facilities are always accompanied by several freighters carrying the spare parts needed. When in operation, a *Pearl* Class facility is surrounded by its compliment of worker bees and manned pods, giving it an appearance reminiscent of a Terran beehive.

Of the 140 mobile repair facilities built, 124 remain in active service, 2 are in reserve fleets, 4 are used by Star Fleet Training Command, 6 have been destroyed, 1 is listed as missing, 2 have been scrapped, and 1 has been sold to a commercial concern.

Pearl Class facilities generally are produced at Morena, though some actually have been built by other *Pearl* Class facilities. The production rate for this facility is three per year.

Alamo Class Defense Outpost



Construction Data:

Model Numbers —	MK III	MK IV
Date Entering Service —	2/0811	2/1212
Number Constructed —	161	126

Hull Data:

Superstructure Points —	64	72
Damage Chart —	C	C
Size		
Length —	560 m	560 m
Width —	195 m	195 m
Height —	510 m	510 m
Weight —	2,200,000 mt	2,500,000 mt

Cargo

Cargo Units —	2,800 SCU	3,000 SCU
Cargo Capacity —	140,000 mt	150,000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	M-7	M-7
Transporters —		
standard 6-person	8	8
emergency 22-person	4	4
cargo - small	4	4
large	2	2

Other Data:

Crew —	410	460
Passengers —	280	300
Shuttlecraft —	30	30

Engines And Power Data:

Total Power Units Available —	179	204
Movement Point Ratio —	10/1	10/1
Warp Engine Type —	FMAPG-2	FMAPG-3
Number —	1	1
Power Units Available —	155	180
Impulse Engine Type —	FIPG-2	FIPG-2
Power Units Available —	24	24

Weapons And Firing Data:

Beam Weapon Type —	FH-3	FH-9
Number —	12	18
Firing Arcs —	4/arc	6/arc
Firing Chart —	W	X
Maximum Power —	5	6
Damage Modifiers —		

+3	(1 - 10)	
+2	(11 - 17)	(1 - 12)
+1	(18 - 20)	(13 - 22)

Missile Weapon Type —

Number —	6	6
Firing Arcs —	2/arc	2/arc
Firing Chart —	L	S
Power To Arm —	1	1
Damage —	10	20

Shields Data:

Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	16	16

Combat Efficiency:

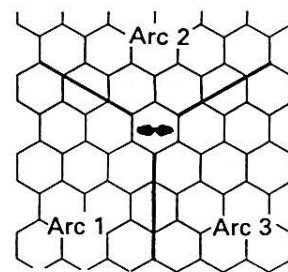
D —	151.3	210
WDF —	111	198



Notes:

The *Alamo* Class defense outpost was first placed on location on Stardate 2/0811. Since that time, 287 of these units have been positioned, usually in orbits around whatever planets are vital, serving as a defensive ring or wall. *Alamo* Class outposts, capable of withstanding a tremendous amount of punishment while delivering powerful offensive blows, are the best deterrent to Klingon aggression.

Alamo Class defense outposts are built on location. They can be moved by several specially-designed *Samson* Class tugs.

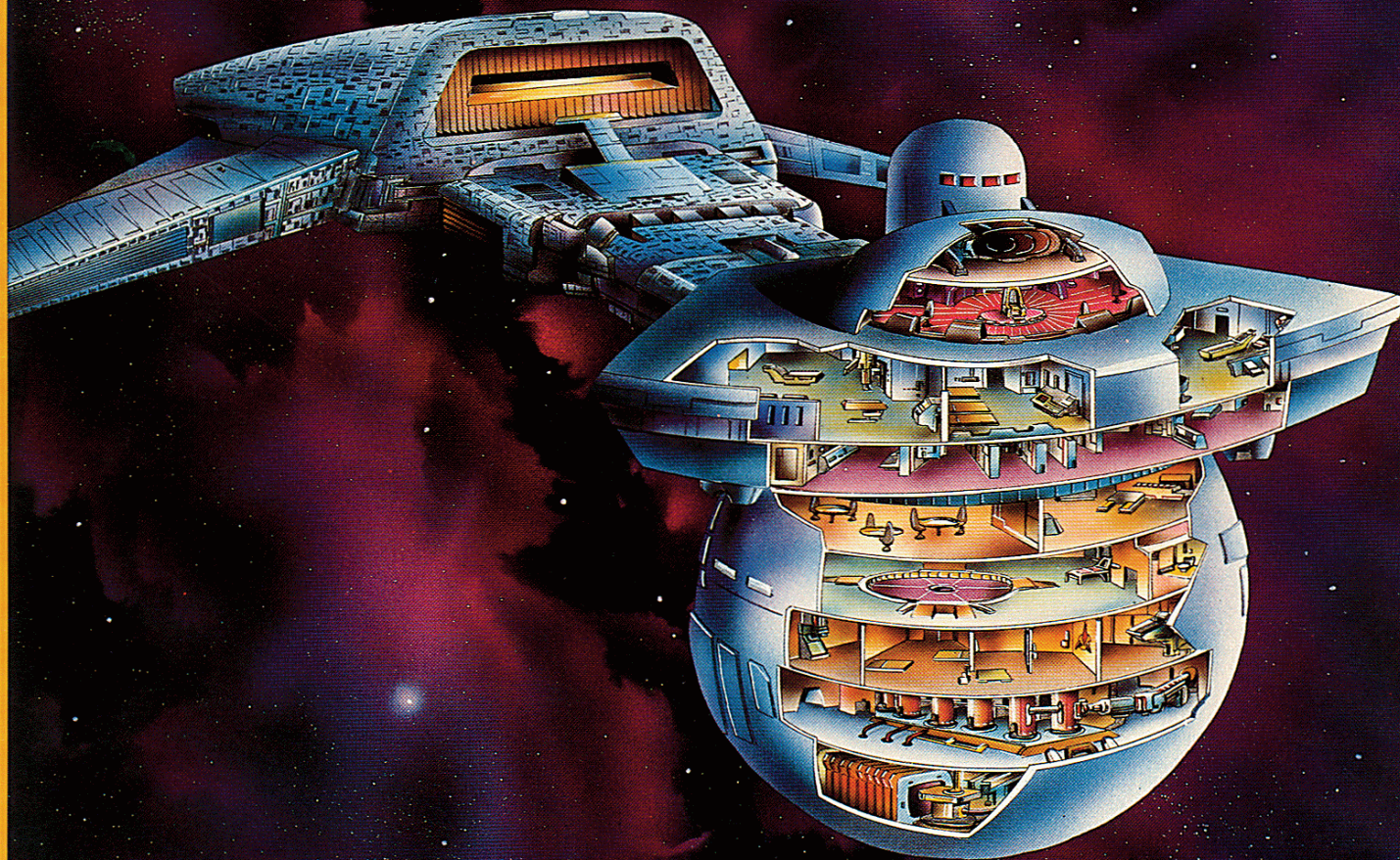


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DANA KNUTSON 85

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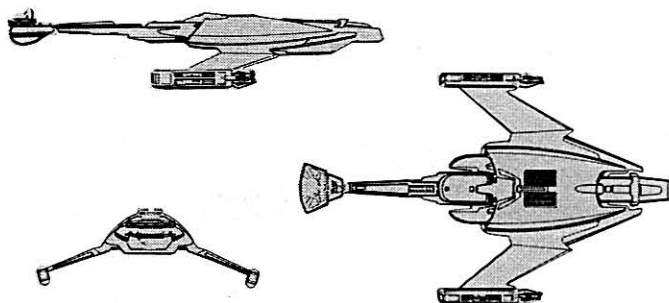
ORBITAL AND DEEP SPACE STATIONS

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T-3 (Mover) CLASS VI ASSAULT SHIP

Construction Data:	
Model Numbers —	A
Date Entering Service —	19009
Number Constructed —	480
Hull Data:	
Superstructure Points —	10
Damage Chart —	B
Size	
Length —	250 m
Width —	150 m
Height —	50 m
Weight —	73,800 mt
Cargo	
Cargo Units —	1,000 SCU
Cargo Capacity —	50,000 mt
Landing Capability —	None
Equipment Data:	
Control Computer Type —	ZD-5
Transporters —	
standard 6-person	6
combat 22-person	6
emergency 18-person	2
cargo	6
Other Data:	
Crew —	62
Troops —	800
Shuttlecraft —	6
Engines And Power Data:	
Total Power Units Available —	30
Movement Point Ratio —	3/1
Warp Engine Type —	KWC-1
Number —	2
Power Units Available —	14
Stress Charts —	L/O
Maximum Safe Cruising Speed —	Warp 7
Emergency Speed —	Warp 8
Impulse Engine Type —	KIB-2
Power Units Available —	2
Weapons And Firing Data:	
Beam Weapon Type —	KD-1
Number —	8
Firing Arcs —	6 f.p.s. 2a
Firing Chart —	B
Maximum Power —	4
Damage Modifiers —	None
Shields Data:	
Deflector Shield Type —	KSC
Shield Point Ratio —	1/1
Maximum Shield Power —	9
Combat Efficiency:	
DWDF —	41.3/5.6



Notes:

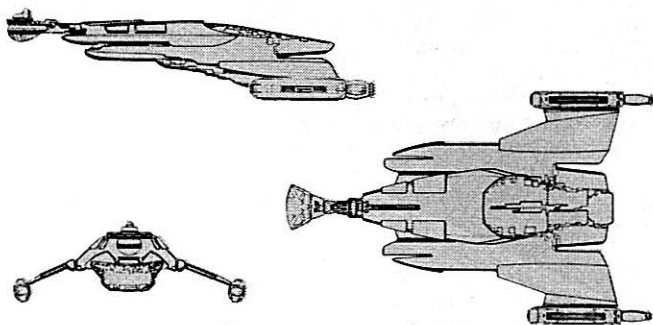
Known Sphere Of Operation: Conflict Zones

Data Reliability: B

Major Data Source: Klingon Sector Intelligence

The T-3 is no longer in production. Of the 480 built, 286 remain in active service, 24 are in reserve fleets, 112 have been destroyed, 5 have been scrapped, and 53 have been sold to the civil sector.

The class is named from the Klingon *d'aka*, an obvious reference to its function.



Notes:

Known Sphere Of Operation: Conflict Zones

Data Reliability: B

Major Data Source: Klingon Sector Intelligence

The T-5 is capable of beaming down 292 troops, 8 light support vehicles and 2 tanks every 2 minutes. In less than 10 minutes, 1400 troops, 32 light support vehicles, and 8 tanks can be placed on the ground ready to attack.

Of the 343 built, 21 T-5As and 253 T-5Bs remain in active service. Four T-5s are in reserve fleets, and 47 have been destroyed. Fourteen T-5As and four T-5Bs have been sold to the civil sector. 120 A models have been converted to B models.

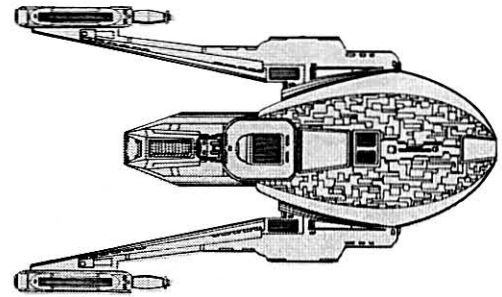
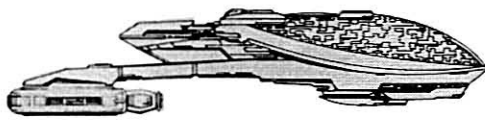
T-5s, named from the Klingon *mas to gal*, are being manufactured at Fonawl and Mustaka, where 14 per year of the combined types are produced.



T-5 (Throne Seeker) CLASS VII ASSAULT SHIP

Construction Data:		A	B
Model Numbers —		2/0310-2/2105	2/1211
Date Entering Service —		210	133
Number Constructed —			
Hull Data:			
Superstructure Points —		10	12
Damage Chart —		C	C
Size			
Length —		270 m	270 m
Width —		165 m	165 m
Height —		60 m	60 m
Weight —		83,700 mt	88,200 mt
Cargo			
Cargo Units —		1,200 SCU	1,200 SCU
Cargo Capacity —		60,000 mt	60,000 mt
Landing Capability —		None	None
Equipment Data:			
Control Computer Type —		ZD-5	ZD-5
Transporters —			
standard 6-person		6	6
combat 22-person		10	10
emergency 18-person		2	2
cargo, small		8	8
cargo, large		2	2
Other Data:			
Crew —		74	76
Troops —		1,400	1,400
Shuttlecraft —		15	15
Engines And Power Data:			
Total Power Units Available —		38	40
Movement Point Ratio —		4/1	4/1
Warp Engine Type —		KWD-1	KWD-1
Number —		2	2
Power Units Available —		18	18
Stress Charts —		L/N	L/N
Maximum Safe Cruising Speed —		Warp 6	Warp 6
Emergency Speed —		Warp 8	Warp 8
Impulse Engine Type —		KIB-2	KIB-1
Power Units Available —		2	4
Weapons And Firing Data:			
Beam Weapon Type —		KD-1	KD-11
Number —		6	6
Firing Arcs —		2f, 1p, 1s, 2a	2f, 1p, 1s, 2a
Firing Chart —		B	F
Maximum Power —		5	5
Damage Modifiers —		None	(1 - 4)
		+2	(5 - 8)
		+1	
Shields Data:			
Deflector Shield Type —		KSJ	KSG
Shield Point Ratio —		2/3	1/2
Maximum Shield Power —		13	10
Combat Efficiency:			
DWDF —		53.3/4.2	61.2/10.2

T-12 (Carrier Of Doom) CLASS IX ASSAULT SHIP



Construction Data:

Model Numbers —	A
Date Entering Service —	2/1405
Number Constructed —	102

Hull Data:

Superstructure Points —	15
Damage Chart —	A
Size	
Length —	300 m
Width —	170 m
Height —	65 m
Weight —	126,200 mt
Cargo	
Cargo Units —	3,200 SCU
Cargo Capacity —	160,000 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	ZD-6
Transporters —	
standard 6-person	8
combat 22-person	10
emergency 18-person	4
cargo small	8
large	4

Other Data:

Crew —	82
Troops —	2,400
Shuttlecraft —	14

Engines And Power Data:

Total Power Units Available —	44
Movement Point Ratio —	4:1
Warp Engine Type —	KWE-3
Number —	2
Power Units Available —	20
Stress Charts —	J:M
Maximum Safe Cruising Speed —	Warp 7
Emergency Speed —	Warp 8
Impulse Engine Type —	KID-2
Power Units Available —	4

Weapons And Firing Data:

Beam Weapon Type —	KD-11
Number —	8
Firing Arcs —	2p, 2f, 2s, 2a
Firing Chart —	F
Maximum Power —	5
Damage Modifiers —	
+2	(1 - 4)
+1	(5 - 8)

Shields Data:

Deflector Shield Type —	KSN
Shield Point Ratio —	2/3
Maximum Shield Power —	14

Combat Efficiency:

D:WDF —	64.3/13.6
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Notes:

Known Sphere Of Operation: Conflict Zones

Data Reliability: B

Major Data Source: Klingon Sector Intelligence

The T-12 is the largest assault ship in the Klingon navy. With the capability of putting its entire contingent of troops and vehicles on the ground in less than 15 minutes, this vessel is one of the most respected in known space. Its ability to beam down a total of 2400 troops, 56 light support vehicles, and 28 heavy tanks in such a short period of time makes it very difficult for any enemy to repel this force. In most assault operations, these ships are used in groups of three, the number of groups depending on the complexity of the operation.

The largest number of these vessels used in a single operation was on Stardate 2/2003 when the Klingons invaded and captured Mrzicann, a small world outside the Organian Treaty Zone. In this campaign, 24 T-12s beamed their troops and material onto the planet's surface with such speed and precision that the defenders were compelled to surrender in less than twelve hours. Mrzicann's standing army of 800,000 troops was overwhelmed by the element of surprise and, in most cases, gave up without any fight. To prevent a repeat of this occurrence, Star Fleet has stepped up its monitoring of these vessels, keeping track of their location and movements.

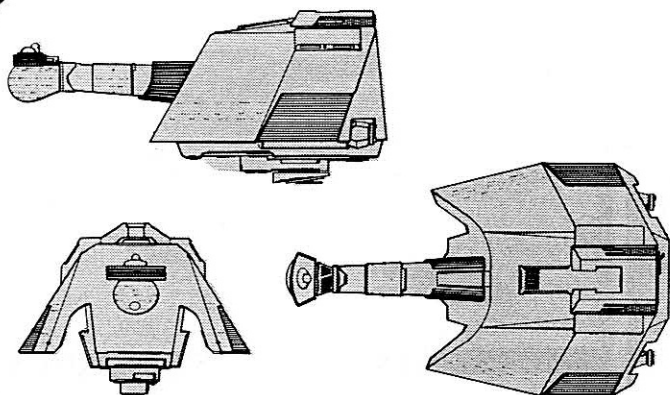
The T-12 is capable of traveling at a sustained speed of Warp 7, allowing it to be an integral part of any invading force. Due to the nature of its mission, the T-12 has better engine shielding than most Klingon vessels. This added shielding protects the troops from being over-exposed to the radiation emitted by the warp and impulse systems.

These vessels carry an impressive array of eight disruptors, and so it would seem that these ships could stand in and fight with most any warship. On closer examination, however, the range limitations of the KD-11 make it obvious that the weapons are only for close-in support.

Of the 102 T-12s built, 88 remain in active service, 2 are used by the Imperial Marine Training Command, and 12 have been destroyed. The T-12 is produced at Fonawli, Iosia, and Mustaka, with a combined production rate of 14 per year.

The class is named from the Klingon *na ra'den*, a typical reference to the strike force it can deliver so rapidly.

L-13 (Fat Man) CLASS IX - XI BATTLESHIP



Construction Data:

Model Numbers—	A	C	D
Ship Class—	IX	X	XI
Date Entering Service—	2/1306	2/1502	2/2009
Number Constructed—	8	9	4

Hull Data:

Superstructure Points—	30	32	34
Damage Chart—	C	C	C
Size—			
Length—	242 m	242 m	244 m
Width—	147 m	147 m	147 m
Height—	110 m	110 m	110 m
Weight—	123,300 mt	158,800 mt	164,300 mt
Cargo—			
Cargo Units—	240 SCU	240 SCU	250 SCU
Cargo Capacity—	12,000 mt	12,000 mt	12,500 mt
Landing Capability—	None	None	None

Equipment Data:

Control Computer Type—	ZD-7	ZD-7	ZD-7
Transporters—			
standard 6-person	4	6	6
combat 22-person	8	8	8
emergency 18-person	2	2	2
cargo	2	3	3
Cloaking Device Type—			KCD
Power Requirement—			48

Other Data:

Crew—	1,048	1,052	1,062
Troops—	392	420	420
Shuttlecraft—	12	14	16

Engines And Power Data:

Total Power Units Available—	41	53	63
Movement Point Ratio—	6/1	5/1	4/1
Warp Engine Type—	KWD-2	KWE-2	KWE-3
Number—	2	2	2
Power Units Available—	12	18	20
Stress Charts—	L/N	J/M	J/M
Maximum Safe Cruising Speed—	Warp 4	Warp 6	Warp 7
Emergency Speed—	Warp 6	Warp 7	Warp 8
Impulse Engine Type—	KIF-1	KIF-1	KIF-2
Power Units Available—	17	17	23

Weapons And Firing Data:

Beam Weapon Type—	KD-8	KD-8	KD-8
Number—	4 in 2 banks of 2	6 in 3 banks of 2	6 in 3 banks of 2
Firing Arcs—	2f p, 2f s	2f p, 2f, 2f s	2f p, 2f, 2f s
Firing Chart—	U	U	U
Maximum Power—	7	7	7
Damage Modifiers—			
+3	(1 - 7)	(1 - 7)	(1 - 7)
+2	(8 - 15)	(8 - 15)	(8 - 15)
+1	(16 - 20)	(16 - 20)	(16 - 20)
Beam Weapon Type—	KD-7	KD-9	KD-9
Number—	3	5	5
Firing Arcs—	2f, 1a	1p a, 3a, 1s a	1p a, 3a, 1s a
Firing Chart—	L	W	W
Maximum Power—	7	5	5
Damage Modifiers—			
+3	(1 - 7)	(1 - 7)	(1 - 7)
+2	(8 - 15)	(8 - 15)	(8 - 15)
+1	(16 - 20)	(16 - 20)	(16 - 20)
Beam Weapon Type—	KD-10		
Number—	4		
Firing Arcs—	1p a, 2a, 1s a		
Firing Chart—	C		
Maximum Power—	3		
Damage Modifiers—	+1 (1 - 6)		
Missile Weapon Type—			KP-6
Number—			4
Firing Arcs—			2f, 2a
Firing Chart—			R
Power To Arm—			2
Damage—			20

Shields Data:

Deflector Shield Type—	KSH	KSL	KSP
Shield Point Ratio—	1/3	1/3	1/3
Maximum Shield Power—	11	14	15

Combat Efficiency:

DWDF—	86.3/38.6	110.2/51.6	135.6/85.2
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Notes:

Known Sphere Of Operation:

Federation and Romulan Borders

Data Reliability: C

Major Data Source: Klingon Sector Intelligence

The L-13 was the first attempt by Klingon ship designers to construct a battleship. After the completion of four ships, with four more in various stages of production, it was discovered that the vessels were no better in combat than some of the existing cruisers and frigates.

On Stardate 2/1502, the first successful modification was commissioned, with the L-13C models superior in every respect. Their warp capabilities increased by 50%, allowing them to travel at Warp 6. The KWE-2 gave them more efficient power for maneuvering and additional power for the weapons systems. The old KD-7 and KD-10 disruptors were replaced with the more effective KD-9, and the shields were improved and superstructure strengthened.

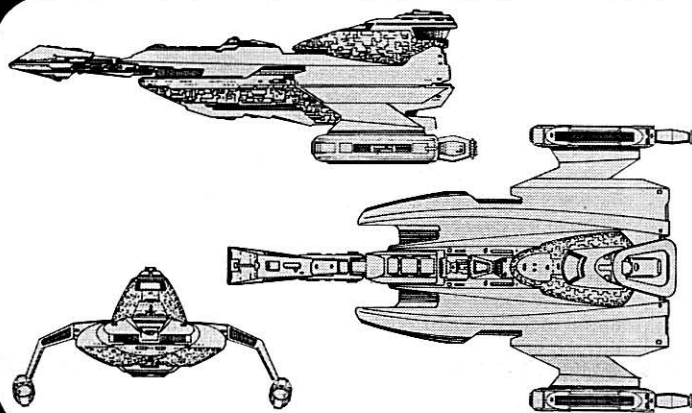
As the Federation and Romulans continued to upgrade their vessels, the Klingons did likewise. The L-13D, introduced on Stardate 2/2009 with the commissioning of two vessels, is equipped with the KWE-3 warp engine and KIF-2 impulse drive, highly efficient engines that give the ships even more power for maneuvering and weapons. Though the disruptor arrangement remains the same as the C model, the KP-6 torpedo has been added in both the fore and aft positions. This model also mounts more efficient shields and has an increased superstructure strength. The KCD cloaking device is reported to have been mounted on two of the four ships produced to date.

On Stardate 2/1403, an L-13A escorted by six D-11Ds attacked a group of Romulan ships near the Triangle. The Romulan force consisted of a Type 1 V-6 (*Gallant Wing*) class cruiser and three Type 7 T-2 (*Death Talon*) class destroyers. The Klingon commander, confident with his new ship, pressed the attack, only to find the Romulan cruiser his equal. After several exchanges of fire, the Klingon force had suffered the loss of 3 D-11s, and serious damage, had been done to the L-13. The Romulan cruiser had received moderate damage and one destroyer had been eliminated. The Klingons, fearing the loss of the battleship, began to withdraw from the battle. The Romulan commander decided to counterattack the retreating Klingons. The huge battleship still had plenty of fight left and was able to disable another of the Romulan destroyers. At this point, both sides disengaged; the Klingon ships withdrew to Klingon space while the Romulan commander returned to the area of the battle and salvaged what he could of his ships, taking in tow a disabled D-11. This skirmish proved to the Klingon Imperial Command that the L-13 needed improvements. The B model was not successful during its tests and was therefore never put into production.

Of the 21 L-13s built, 20 remain in active service, and one A model is missing and presumed lost. The facilities for constructing the L-13 are located at Taamar and are estimated to produce up to two per year.

The class, named for the Klingon *k'el ri'anda*, translates to "the dangerous fat man". The brunt of many jokes about being more dangerous to their Klingon crews than the enemy, the L-13 is known to Star Fleet officers as "the fat man" and as "the turtle".

L-24 (Ever-Victorious) CLASS XIII BATTLESHIP



Construction Data:

Model Numbers —	A
Date Entering Service —	2/2204
Number Constructed —	2

Hull Data:

Superstructure Points —	38
Damage Chart —	C
Size	
Length —	320 m
Width —	190 m
Height —	105 m
Weight —	214,000 mt

Cargo

Cargo Units —	300 SCU
Cargo Capacity —	15,000 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	ZD-8
Transporters —	
standard 6-person	8
combat 22-person	10
emergency 18-person	2
cargo	4

Other Data:

Crew —	1,070
Troops —	480
Shuttlecraft —	20

Engines And Power Data:

Total Power Units Available —	79
Movement Point Ratio —	5/1
Warp Engine Type —	KWG-1
Number —	2
Power Units Available —	28
Stress Charts —	I/M
Maximum Safe Cruising Speed —	Warp 6
Emergency Speed —	Warp 8
Impulse Engine Type —	KIF-2
Power Units Available —	23

Weapons And Firing Data:

Beam Weapon Type —	KD-8
Number —	8 in 4 banks of 2
Firing Arcs —	4f/p, 4f/s
Firing Chart —	U
Maximum Power —	7
Damage Modifiers —	
+3	(1 - 7)
+2	(8 - 15)
+1	(16 - 20)
Beam Weapon Type —	KD-13
Number —	4
Firing Arcs —	2p/a, 2s/a
Firing Chart —	X
Maximum Power —	5
Damage Modifiers —	
+3	(1 - 7)
+2	(8 - 15)
+1	(16 - 22)
Missile Weapon Type —	KP-6
Number —	4
Firing Arcs —	2f, 2a
Firing Chart —	R
Power To Arm —	2
Damage —	20

Shields Data:

Deflector Shield Type —	KSP
Shield Point Ratio —	1/3
Maximum Shield Power —	15

Combat Efficiency:

DWDF —	153.3/95.2
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Notes:

Known Sphere Of Operation: Federation Border

Data Reliability: D

Major Data Source:

Klingon Sector Intelligence, Operation Dixie

The L-24 is the largest warship in the Klingon navy. These mammoth ships were commissioned into service prior to the testing of the Federation battleship *Excelsior*. For a short period of time, the balance of power along the borders turned in favor of the Klingons.

The battleship uses the most powerful warp and impulse engines in the Klingon inventory. The combination of these power plants gives these vessels a highly efficient maneuver ratio and allows them to sustain speeds of Warp 6 for long periods of time. The warp engines are mounted on pylons to keep them from the main hull of the ship, and, as with most newer designs, they can be jettisoned in case of emergency. The L-24 differs from other Klingon ships regarding the shielding provided to the engineering technicians. Most other Klingon vessels have minimal engine shielding, and servitor races are trained to operate this equipment; in the L-24, Klingon citizens operate the engines.

The L-24 mounts eight KD-8 disruptors in banks of two, and four KD-13 disruptors. The KD-8s are mounted two banks on the command pod and two banks on the main hull. The KD-13s are mounted on the rear of the main hull. The battleship can fire as many as ten disruptors and two photon torpedoes in some areas of the forward arc, giving this ship a definite advantage in most situations. The KP-6 torpedo, which is mounted in both the fore and aft positions, can inflict as much damage as the most powerful torpedo in the Federation arsenal.

The interior of the battleship is compartmented to reduce the dangers of decompression during battle. This makes the structural integrity of the ship much greater, as seen by the high superstructure strength rating. The deflector shielding for the L-24 is the best the Klingons can produce at this time.

The bridge is located in the forward pod. This typical Klingon bridge design is capable of being separated from the main hull in case of emergency. The bridge of the L-24 has an auxilliary impulse engine that can be used only after separation; it gives the command pod the ability to travel short distances and allows a minimum of maneuvering. The pod mounts two of the KD-8 disruptor banks, which are capable of firing in all directions when separated from the main hull. Also mounted in the pod is a torpedo bay capable of firing torpedoes, though the torpedo storage is minimal.

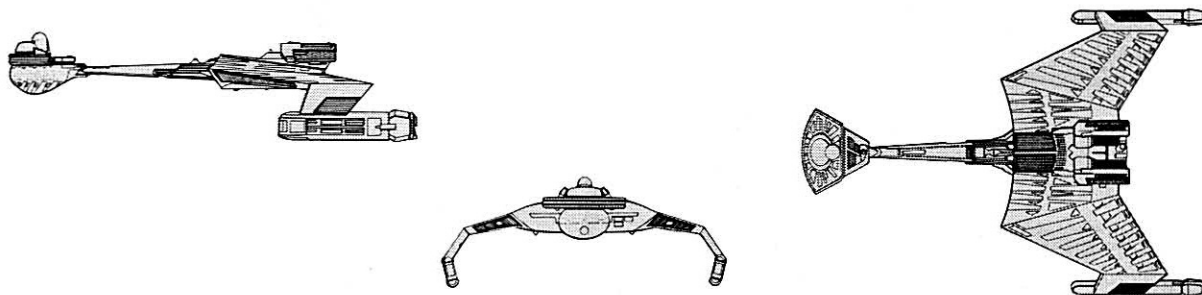
Like most Klingon warships, this vessel carries assault troops. The 480 troops and their eight light support vehicles are capable of being transported to the ground in less than seven minutes.

As of Stardate 2/2306, only two L-24s have been commissioned into service. Both vessels have been scanned along the Federation border and are known to be working that area. Intelligence gathered from Operation Dixie suggests that new L-24s will be stationed along the Romulan and Triangle borders in the near future.

Further data gained by Operation Dixie shows that these battleships will be produced at two facilities. The first models have been manufactured at the Taamar shipyard, and it is believed that the second facility is being constructed at Gnuu Re'.

The class is named from the Klingon *komo val*, which translates to *always in victory*.

D-7 (Various Names) CLASS VII - IX CRUISER



Construction Data:	A	C	G	M	R	S
Model Numbers—	VIII	VII	VIII	IX	IX	IX
Ship Class—	18611	1/9809-2/2004	2/1012-2/1511	2/1105	2/1203	2/1904
Date Entering Service—	1671	162	16	1244	32	66
Number Constructed—						
Hull Data:						
Superstructure Points—	20	18	20	20	20	22
Damage Chart—	C	C	C	C	C	C
Size						
Length—	216 m	216 m	218 m	221 m	218 m	221 m
Width—	152 m	152 m	152 m	158 m	152 m	156 m
Height—	55 m	55 m	55 m	62 m	55 m	62 m
Weight—	100,300 mt	89,000 mt	100,400 mt	135,000 mt	134,900 mt	139,900 mt
Cargo						
Cargo Units—	120 SCU	120 SCU	100 SCU	120 SCU	80 SCU	160 SCU
Cargo Capacity—	6,000 mt	6,000 mt	5,000 mt	6,000 mt	4,000 mt	8,000 mt
Landing Capability—	None	None	None	None	None	None
Equipment Data:						
Control Computer Type—	ZD-5	ZD-5	ZD-5	ZD-6	ZD-6	ZD-6
Transporters—						
standard 6-person	3	3	3	3	3	3
combat 22-person	5	4	4	5	4	5
emergency 18-person	1	1	1	1	1	1
cargo	2	2	2	2	2	2
Cloaking Device Type—	None	None	None	None	KCC	KCC
Power Requirement—	None	None	None	None	32	32
Other Data:						
Crew—	352	352	360	373	378	375
Troops—	220	180	110	220	110	220
Shuttlecraft—	5	5	5	5	5	5
Engines And Power Data:						
Total Power Units Available—	40	32	40	44	44	44
Movement Point Ratio—	4/1	3/1	4/1	3/1	3/1	3/1
Warp Engine Type—	KWD-1	KWC-1	KWD-1	KWE-3	KWE-3	KWE-3
Number—	2	2	2	2	2	2
Power Units Available—	18	14	18	20	20	20
Stress Charts—	L/N	L/O	L/N	J/M	J/M	J/M
Maximum Safe Cruising Speed—	Warp 6	Warp 7	Warp 6	Warp 8	Warp 8	Warp 8
Emergency Speed—	Warp 8	Warp 8	Warp 8	Warp 9	Warp 9	Warp 9
Impulse Engine Type—	KIC-2	KIC-2	KIC-2	KIC-2	KIC-2	KIC-2
Power Units Available—	4	4	4	4	4	4
Weapons And Firing Data:						
Beam Weapon Type—	KD-6	KD-6	KD-6	KD-8	KD-8	KD-8
Number—	4	7	4	4	6	6
Firing Arcs—	2f p, 2f s	2f p, 1f, 2f s, 2a	2f p, 2f s	2f p, 2f s	2f p, 2f, 2f s	2f p, 2f, 2f s
Firing Chart—	T	T	T	U	U	U
Maximum Power—	6	6	6	7	7	7
Damage Modifiers—						
+3				(1 - 7)	(1 - 7)	(1 - 7)
+2	(1 - 18)	(1 - 18)	(1 - 18)	(8 - 15)	(8 - 15)	(8 - 15)
+1				(16 - 20)	(16 - 20)	(16 - 20)
Missile Weapon Type—			RPL-1	KP-3	RPL-1	KP-4
Number—			1	2	1	2
Firing Arcs—			F	1f, 1a	F	1f, 1a
Firing Chart—			E	R	E	Q
Power To Arm—			10	2	10	2
Damage—			See Chart	15	See Chart	18
Shields Data:						
Deflector Shield Type—	KSC	KSC	KSC	KSK	KSK	KSK
Shield Point Ratio—	1.1	1.1	1.1	1.2	1.2	1.2
Maximum Shield Power—	8	9	8	12	12	12
Combat Efficiency:						
DWDF—	88.9	118.6	133.5	87.6/34.4	84.6/34.4	87.5/46.4
	54.6/20.4	53.2/35.7	54.6/24.3			

Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: A (all models but D-7S); D for D-7S

Major Data Source: All but D-7S in Star Fleet possession; Klingon Sector Intelligence

The D-7 is probably the most infamous cruiser ever to stalk the spacelanes. These ships are associated with death and destruction on a scale second to none. When first introduced, these vessels captured the minds and spirits of the Klingon commanders so fully that for many years they were the symbol of Klingon tyranny.

This design was developed from the earlier D-4 cruiser and incorporated all of its most popular features. The command pod mounted forward on the boom assembly and the wing-like main hull were changed slightly in the design, but all of the basic concepts were retained.

In all models, the command pod can be jettisoned in case of emergency. A small micro-impulse drive system, mounted into the pod just for such emergencies, allows the pod to maneuver itself and travel short distances in hopes of rescue. A pod can maintain the life-support systems and operate the short-range sensors and weapons for up to one year. One of the main features of the pod is the disruptors mounted below the bridge; these weapons will give protection from hostiles and also allow for the self-destruction of the pod if capture is imminent.

The secondary bridge, weapons control, and all engineering facilities are located in the main hull. Separated from the command pod, this section of the vessel is capable of maintaining fully functional life-support, weapons, and engine systems for up to two years. Of course, this section is capable of warp speeds and will effect its own rescue much quicker than can the command pod. Within the engineering

section of the main hull are the matter/anti-matter mix chambers, little shielded, as servitor races man the engineering compartments of most Klingon vessels. All *D-7* models are capable of jettisoning the warp engines in case of an uncontrolled mix in the matter/anti-matter chamber. This would leave the ship with only the impulse engines for power. In most cases where warp engines have had to be ejected, the command pod has been separated first to insure the captain will be safe.

In the center section of the main hull are compartments containing hypothermia capsules for the marines. The troops are kept in a frozen state until they are required, which reduces the requirement for food and life-support and thus prolongs the on-station time of the ship.

Introduced on Stardate 1/8611, the *D-7A* didn't see any action in the Unknown War, but the lessons learned from this conflict were reflected in its design. By Stardate 1/9302, eight separate manufacturing facilities were producing this model at a rate of five per month. When the Four Years War broke out, production of these ships soared to twelve per month within the first year and peaked at 26 per month by the third year. The Klingons, having brought the war on, were ready with over 400 of these ships in the front-line; studies have shown that this numerical advantage was the prime factor in their early advances into Federation territory. On a one-to-one basis, Federation cruisers and frigates were far superior as warships, but their limited numbers prevented them from turning the Klingons back in the early stages of the war. The *D-7A* class, named "Painbringer" from the Klingon *K't'agga*, served the Klingon Imperial Navy well in the war with a high reliability rating and ease of repairs.

Of the 1671 *D-7As* produced, 431 remain in active service, 83 have been placed in reserve fleets, 12 are used by the Klingon Naval Academy as training vessels, 891 have been destroyed, 23 have been captured (10 by Star Fleet and 13 by the Romulans), 15 are listed as missing, 26 have been scrapped, 170 have been traded to the Romulans, and 20 have been sold to ranking families within the empire.

The *D-7C*, introduced at the close of the Four Years War, saw no action in that conflict, but it was given its baptism of fire just seven months after entering service. The *D-7Cs* involved in the incident were so badly outclassed by their Romulan adversaries that the design was never fully accepted by starship captains, and the model was finally removed from service on Stardate 2/2004.

The *D-7C*, named "Bringer Of Destiny" from the Klingon *k't'kara*, had more efficient warp engines than those mounted on the *D-7A*, but they were incapable of powering all the weapons even though the ship was more maneuverable. The designers felt that the increased warp speed and maneuvering ratio would make this ship more cost-effective, even though it was a dismal failure because of it failed to meet its design requirements as a gunship due to its inability to power all its disruptors during combat. Furthermore, though the *D-7C* had slightly improved shielding, this advantage was lost due to its weaker superstructure. For some unexplained reason, Klingons have never put larger warp engines on this ship, though it seems that, if this had been done early in its career, it certainly would have outclassed anything the Romulans or Star Fleet had at the time.

Of the 162 *D-7Cs* built, 52 have been placed in reserve fleets, 65 have been destroyed, 13 captured (9 by Star Fleet and 4 by the Romulans), 4 listed as missing, 18 sold to the Orions, 6 sold to prominent families within the Empire, and 4 sold to private groups or individuals in the Triangle.

The *D-7G*, named "Truthbringer" after the Klingon *k't'alla*, was the direct result of the first Romulan-Klingon technology exchanges, as part of which the Klingons received 24 Romulan plasma weapons of the RPL-1 type. Sixteen of these were immediately installed on *D-7s*, and the remaining weapons were given to weapons research firms within the Empire. The conversions to *D-7Gs* were made on *D-7As*, which otherwise remained the same. The plasma weapon design required the ship to be close to the enemy in order to fire, and most Klingon commanders did not like the tactics that the weapon dictated, hence no Klingon commander felt comfortable with the conversions.

Of the 16 *D-7Gs* built, 10 were converted to *D-7Rs*, 4 were destroyed, 1 was captured by Star Fleet, and 1 is in the service

of a ranking family within the Empire.

The *D-7M*, introduced on Stardate 2/1105, was a match for the Federation *Constitution* and Romulan *V-6* (*Gallant Wing*) cruisers. This gave the Klingon navy a slight advantage along its borders, and the Imperial Command began to press the balance more aggressively. Both the Romulan navy and Star Fleet commissioned upgraded versions of their vessels shortly after the appearance of the *D-7M* in order to hold the Klingons in check. Within two years after its introduction into service, 75% of all facilities producing the *D-7A* had been converted to manufacture the *D-7M*, allowing the Klingons to place more and more of these ships in sensitive areas. As the Klingons grew bolder, these ships began to appear in the Organian Treaty Zone and in the Triangle. Traveling in groups of threes, sorties were made by Klingon commanders into areas that were declared neutral or de-militarized, and several worlds were subjugated by small forces of these ships.

The *D-7M* mounts the KWE-3 warp engine, which (in this configuration) gives more efficient power for maneuver and added power for the weapons systems; this warp drive system allowed the *D-7* to travel at Warp 8 and, in an emergency, Warp 9. The KD-6 disruptors were replaced with the more powerful KD-8s, extending the offensive range of the ship to 200,000 km. An additional improvement, giving a punch that surprised many Romulan and Star Fleet commanders when first encountered, was the KP-3 photon torpedo mounted both fore and aft. Improved shielding was also added, increasing its capabilities by 50%.

Several vessels of this type, named "Bringer Of Destruction" from the Klingon *k't'inga*, have gained a level of fame equal to that of the *USS Enterprise*, most notably the *IKV Bardur*. The *Bardur* is known to have destroyed over 20 Romulan vessels, 10 Federation vessels, and participated in skirmishes that have accounted for the loss of over 40 enemy ships. The captain of this ship has been promoted to Admiral and, much like his Federation counterpart, remains in command of his vessel, now the smallest ship in known space to be a fleet flagship. The current position of this fleet is in the Orion sector, operating from the border starbase located there.

Of the 1244 *D-7Ms* built, 965 remain in active service, 198 have been destroyed, 8 have been captured (5 by Star Fleet and 3 by the Romulans), 11 have been scrapped, 36 are in the service of ranking families of the Empire, and 21 have been reported as missing. Three of those missing were destroyed during the V'ger incident, and several others are known to be operating in the Triangle under the command of renegade Klingons.

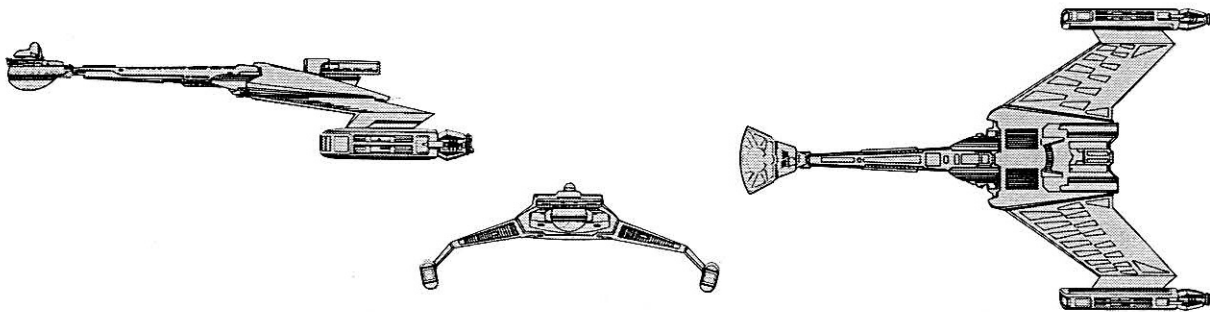
The *D-7R*, named "Bringer Of Agony" after the Klingon *k't'rika*, was another attempt by the Klingons to make use of the plasma weapons, this time incorporated into the improved *D-7M* hull with the photon torpedo bays removed. The RPL-1 was placed in the bow of the ship and an additional KD-8 disruptor was placed in the aft compartment. In addition to these changes, a KCC cloaking device was added. The Klingons had learned by this time that the plasma weapon and cloak were designed to be used together, often by remaining cloaked and stationary in the path of their adversary before decloaking and firing the plasma bolt at minimum range.

Of the 32 *D-7Rs* built, 29 remain in active service, 2 have been destroyed, and 1 has been captured by Star Fleet.

The *D-7S*, the newest of this line of cruisers, is an improved version of the *D-7M*, appearing to be a *D-7M* at first glance. Only well-trained personnel will be able to tell the difference on a sensor scan, but these cruisers mount six KD-8 disruptors and fore- and aft-firing KP-4 torpedoes. In addition, some models carry the KCC cloaking device.

The *D-7S*, named "Bringer Of Justice" from the Klingon *k't'mara*, is being produced at the same facilities as the *D-7M*, which intelligence reports show will be phased out for this much-improved version; the facilities at Taamar, Gnuu Re', losia, H'rez, and Z'hai are producing 40 *M* models and 22 *S* models per year. Of the 66 *D-7Ss* built, 65 remain in active service and one has been listed as missing. Although Star Fleet has encountered these vessels, none have been destroyed or captured. Orion reports from within the Triangle suggest that the Klingons are operating several small groups there.

D-4 (Predator) CLASS VII CRUISER



Construction Data:

Model Numbers —	A	E
Date Entering Service —	1/8407 – 1/9501	1/9203 – 2/0806
Number Constructed —	430	384

Hull Data:

Superstructure Points —	16	17
Damage Chart —	C	C
Size —		
Length —	205 m	205 m
Width —	130 m	130 m
Height —	45 m	45 m
Weight —	82,500 mt	84,600 mt

Cargo

Cargo Units —	80 SCU	80 SCU
Cargo Capacity —	4,000 mt	4,000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	ZD-5	ZD-5
Transporters —		
standard 6-person	3	3
emergency 18-person	1	1
cargo	1	1

Other Data:

Crew —	295	305
Shuttlecraft —	4	4

Engines And Power Data:

Total Power Units Available —	30	34
Movement Point Ratio —	4/1	4/1
Warp Engine Type —	KWC-1	KWC-1
Number —	2	2
Power Units Available —	14	14
Stress Charts —	L/O	L/O
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 8	Warp 8
Impulse Engine Type —	KIB-2	KID-1
Power Units Available —	2	6

Weapons And Firing Data:

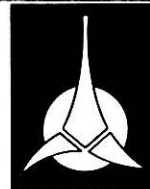
Beam Weapon Type —	KD-2	KD-3
Number —	5	5
Firing Arcs —	2f/p, 2f/s, 1a	2f/p, 2f/s, 1a
Firing Chart —	G	I
Maximum Power —	4	5
Damage Modifiers —		
+ 1	(1 – 10)	(1 – 12)

Shields Data:

Deflector Shield Type —	KSB	KSE
Shield Point Ratio —	1/1	1/1
Maximum Shield Power —	6	10

Combat Efficiency:

D/WDF —	44.9/7.0	53.3/13.5
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Notes:

Known Sphere Of Operation:

Interior of the Klingon Empire

Data Reliability: A

Major Data Source:

Models A and E are in Star Fleet possession.

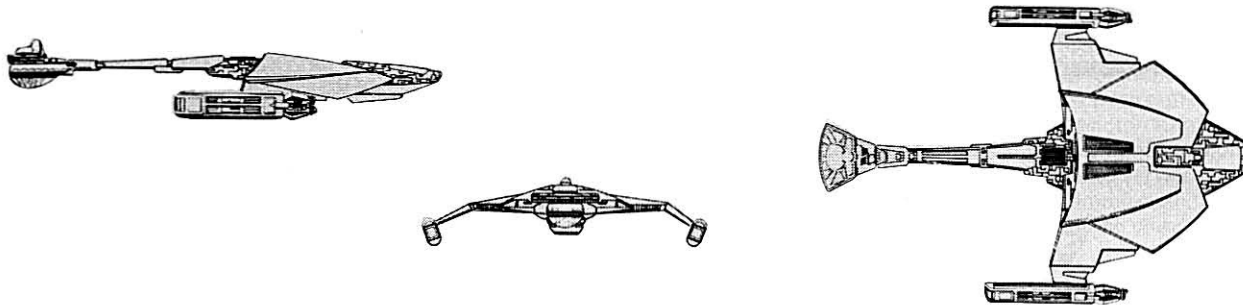
The D-4, predecessor to the famed D-7 class, pioneered the command-pod-forward design that has become the standard for most modern Klingon warships. The class was introduced on Stardate 1/8407 with the commissioning of eight ships, which had been produced at the alarming rate of one per month at facilities operating as if under wartime production orders. This was a clear signal that the Klingons were either preparing for a war with either Romulan or Federation forces or were involved in a conflict along an unknown border. Only recently, because of intelligence gained from Operation Dixie, has it come to light that the Klingons were in fact being attacked by an unknown enemy along their coreward border. During this conflict the D-4 saw extensive action and went through several different modifications, several of which were never brought into production. This conflict ended somewhere around Stardate 1/8610, slowing further development.

On Stardate 1/9108, the D-4E was tested and proclaimed successful. Production was converted over to this newer model, and, by Stardate 1/9203, the first vessels were commissioned. By 1/9501, the D-4A was no longer being produced, and most of the D-4As in service were being converted to D-4Es, which mounted a more powerful impulse drive system.

The major improvement was the replacement of the KD-2 by the KD-3, with a range of 120,000 km, extending the offensive capability of the D-4 by 20,000 km. The shielding system was also upgraded, with the new KSE system giving the ship 65% more protection from incoming fire. The superstructure was strengthened to handle the uprated equipment. Even though the D-4 proved to be valuable in combat, witnessed by its class name of "Predator" from the Klingon *d'ama*, its days were numbered. The D-7, with its higher firepower and more powerful engines, would replace it by Stardate 2/0806.

Of the 814 D-4s built, 277 are in reserve fleets (48 As and 229 Es), 462 were destroyed, 14 have been captured (3 As and 6 Es by Star Fleet and 2 As and 3 Es by the Romulans), 6 reported as missing, 16 were scrapped, 11 sold to the Orions (4 As and 7 Es), and 28 sold to prominent families of the Empire (10 As and 18 Es).

D-9 (Seeker) CLASS VIII CRUISER



Construction Data:

Model Numbers —	B
Ship Class —	VIII
Date Entering Service —	1/9704
Number Constructed —	82

Hull Data:

Superstructure Points —	20
Damage Chart —	C
Size	
Length —	160 m
Width —	110 m
Height —	24 m
Weight —	100,500 mt

Cargo

Cargo Units —	100 SCU
Cargo Capacity —	5,000 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	ZD-5
Transporters —	
standard 6-person	4
emergency 18-person	2
cargo	2

Other Data:

Crew —	380
Passengers —	40
Shuttlecraft —	4

Engines And Power Data:

Total Power Units Available —	38
Movement Point Ratio —	4:1
Warp Engine Type —	KWD-1
Number —	2
Power Units Available —	18
Stress Charts —	L/N
Maximum Safe Cruising Speed —	Warp 6
Emergency Speed —	Warp 8
Impulse Engine Type —	KIB-2
Power Units Available —	2

Weapons And Firing Data:

Beam Weapon Type —	KD-5
Number —	4
Firing Arcs —	1p, 2f, 1s
Firing Chart —	P
Maximum Power —	4
Damage Modifiers —	

+2	(1 - 10)
+1	(11 - 18)

Beam Weapon Type —	KD-4
Number —	1
Firing Arcs —	A
Firing Chart —	J
Maximum Power —	4
Damage Modifiers —	
+1	(1 - 10)

Shields Data:

Deflector Shield Type —	KSF
Shield Point Ratio —	2:3
Maximum Shield Power —	9

Combat Efficiency:

D WDF —	61.6/14.4
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Notes:

Known Sphere Of Operation:

Spinward and Federation Borders

Data Reliability: C

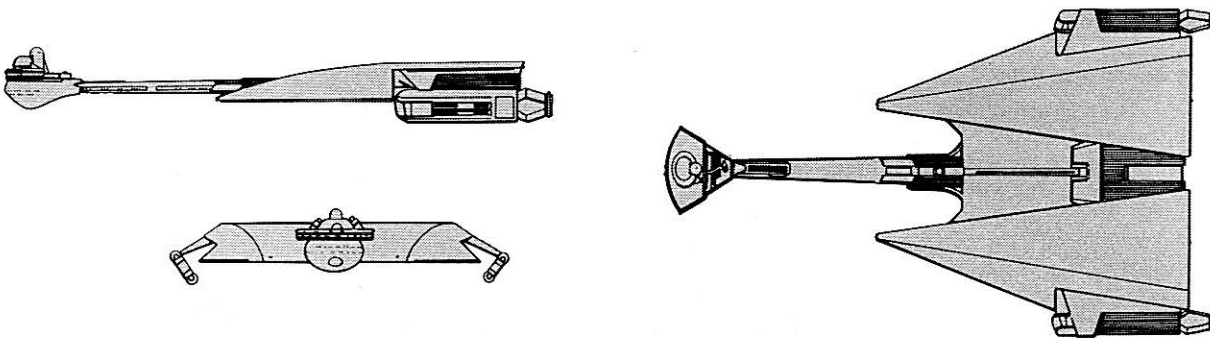
Major Data Source: Klingon Sector Intelligence

The D-9 cruiser was brought into service during the Four Years War to act as a research vessel. For years, the Klingon Empire had been halted in its attempts at expansion. To the rimward lay the Federation; towards the trailing arm were the Romulans; and it has been speculated that to the coreward lay some unknown power able to hold the Klingons in check. This left the spinward area, as yet not fully explored. Expansion into this void had been slow due to the great distances from the homeworld of Klinzhai and the apparent lack of suitable worlds for conquest, but the desire to outflank the Federation altered that. The newly constructed D-9 cruiser was intended to lead this effort.

The D-9A prototype was considered to be undergunned and was dropped from production even before it had been commissioned. An upgunned version, the D-9B with mainly defensive weaponry, was commissioned on Stardate 1/9704 and was immediately sent into the new expansion area. These ships and their accompanying scoutships were to map new areas and evaluate the cultural levels of any races encountered. The war with the Federation ended one year after the D-9Bs entered service, and the sense of urgency for the flanking expansion effort diminished. The flanking movement is portrayed in a Star Fleet commanders test known as *Operation Armageddon*.

After the end of the Four Years War, most of the facilities set up to produce these research cruisers were converted over to warship designs, accounting for the small number produced. The D-9, named "Seeker" from the Klingon *z'gal*, is manufactured at Gnuu Re, with production at three per year. These vessels are still operating in the spinward areas. Of the 82 D-9s built, 68 remain in active service, 9 have been destroyed, 3 are listed as missing, and 2 have been sold to private interests in the Triangle.

D-10 (Riskadh) CLASS VIII - X CRUISER



Construction Data:					
Model Numbers —	A	D	F	G	H
Ship Class —	VIII	X	X	X	X
Date Entering Service —	1/9606-2/1801	2/1307	2/1410	2/1601	2/2009
Number Constructed —	444	455	14	84	32
Hull Data:					
Superstructure Points —	22	24	28	28	30
Damage Chart —	C	C	C	C	C
Size —					
Length —	262 m	264 m	266 m	264 m	264 m
Width —	157 m	157 m	157 m	157 m	157 m
Height —	30 m	32 m	32 m	30 m	30 m
Weight —	104,800 mt	142,400 mt	143,800 mt	151,510 mt	154,250 mt
Cargo —					
Cargo Units —	245 SCU	240 SCU	200 SCU	320 SCU	320 SCU
Cargo Capacity —	12,250 mt	12,000 mt	10,000 mt	16,000 mt	16,000 mt
Landing Capability —	None	None	None	None	None
Equipment Data:					
Control Computer Type —	ZD-5	ZD-6	ZD-7	ZD-7	ZD-7
Transporters —					
standard 6-person	4	4	4	4	4
combat 22-person	6	6	5		
emergency 18-person	1	1	1	4	4
cargo	2	2	2	2	2
Other Data:					
Crew —	505	520	532	525	530
Passengers —				20	20
Troops —	320	320	240		
Shuttlecraft —	10	10	8	12	12
Engines And Power Data:					
Total Power Units Available —	38	40	46	46	52
Movement Point Ratio —	4/1	4/1	4/1	4/1	4/1
Warp Engine Type —	KWD-1	KWE-2	KWE-3	KWE-3	KWE-3
Number —	2	2	2	2	2
Power Units Available —	18	18	20	20	20
Stress Charts —	L/N	J/M	J/M	J/M	J/M
Maximum Safe Cruising Speed —	Warp 6	Warp 7	Warp 7	Warp 7	Warp 7
Emergency Speed —	Warp 8	Warp 8	Warp 8	Warp 8	Warp 8
Impulse Engine Type —	KIB-2	KID-2	KIE-1	KIE-1	KIE-2
Power Units Available —	2	4	6	6	12
Weapons And Firing Data:					
Beam Weapon Type —	KD-6	KD-9	KD-13	KD-13	KD-13
Number —	6	6	8	8	10
Firing Arcs —	2f p, 2f, 2f s	2f p, 2f, 2f s	2f p, 2f, 2f s, 2a	2f p, 2f, 2f s, 2a	2f p, 2f, 2f s, 4a
Firing Chart —	T	W	X	X	X
Maximum Power —	6	5	5	5	5
Damage Modifiers —					
+3		(1 - 8)	(1 - 7)	(1 - 7)	(1 - 7)
+2		(9 - 15)	(8 - 15)	(8 - 15)	(8 - 15)
+1	(1 - 18)	(16 - 22)	(16 - 22)	(16 - 22)	(16 - 22)
Beam Weapon Type —	KD-3	KD-3	KD-5	KD-5	
Number —	2	2	2	2	
Firing Arcs —	A	A	A	A	
Firing Chart —	I	I	P	P	
Maximum Power —	5	5	4	4	
Damage Modifiers —					
+2			(1 - 10)	(1 - 10)	
+1	(1 - 12)	(1 - 12)	(11 - 18)	(11 - 18)	
Missile Weapon Type —		KP-4	RPL-1	KP-4	KP-6
Number —		2	1	2	2
Firing Arcs —		1f, 1a	F	1f, 1a	1f, 1a
Firing Chart —		Q	E	Q	Q
Power To Arm —		2	10	2	2
Damage —		18	See Chart	18	20
Shields Data:					
Deflector Shield Type —	KSJ	KSO	KSL	KSL	KSL
Shield Point Ratio —	2/3	1/2	1/3	1/3	1/3
Maximum Shield Power —	12	15	14	14	14
D/WDF —	69.36	85.3/45.2	102.5/55.7	107.5/61.6	118.3/68.8

Notes:

Known sphere Of Operation: Empire-wide use

Data Reliability: A for models A, D, and G; B for model F; D for model H.

Major Data Source: Models A, D, and G are in Star Fleet possession; Klingon Sector Intelligence

On Stardate 1/9606, the *D-10* cruiser, the design of which was strongly influenced by the *D-7*, was commissioned into service. The Klingon Imperial Command hoped to counter Star Fleet's *Constitution* class cruisers with this new vessel. The Four Years War was in its second year, and the Klingons had learned some of their lessons well. The *D-10* featured a sturdy superstructure and the most effective shields the empire had to offer. The fore- and aft-mounted disruptors were far superior to the Federation lasers, but were not as destructive as the Federation's accelerator cannons.

The *D-10* used the same command pod as the *D-7*, thus eliminating the need for additional production facilities. Like the *D-7*'s pod, that of the *D-10* is capable of being jettisoned and has similar sub-light maneuvering and life support capabilities. On Stardate 1/9802, Star Fleet captured a pod that had been jettisoned during the Battle of Kesse 16 months earlier; the crew were alive and as well as could be expected.

The main hull of the early *D-10*s contain the engineering section, shuttlebays, crew quarters, and assault troop hypothermia capsules; later models have no troop-carrying capabilities but instead have large research facilities. The warp engines are mounted on short pylons and are jettisonable. With the additional removal of the hypothermia capsules, the ship is capable of running on its impulse power alone for up to one year. The shuttle hangars are located on the upper wing surface of the main hull and are seen as two large doors. Directly aft of these doors are located the aft firing disruptors; aft-firing photon torpedo tubes are located at the stern of the vessel just below the impulse exhaust port.

The *D-10* is the only Klingon warship whose class name honors a Klingon family line: the Riskadh line, which died with its founder, Kahless the Unforgettable, the greatest of all emperors. *D-10*s are manufactured at the Taamar, Gnuu Re', Fonawl, Z'hai, and Mustaka facilities. The combined production rate is 14 *D-10*Ds, 12 *D-10*Gs, and 10 *D-10*Hs per year.

The *D-10A* first entered service on Stardate 1/9606, the first ships being rapidly sent into the Four Years War, where they proved to be the most powerful and feared ships in the Klingon Imperial Navy.

The model used a powerful warp engine, but mounted a fairly weak impulse system, the only real shortcoming of the vessel; the main engines allowed the ships to cruise at Warp 6, with emergency speeds as high as Warp 8. The weapons system consisted of six individually-mounted KD-6 disruptors and two aft-mounted KD-3s, giving the cruiser an offensive range capability 80,000 km greater than Federation warships.

With the Klingons having range superiority, if it had not been for the superior tactics of the Star Fleet commanders, the Four Years War might have turned out much differently. Star Fleet commanders were able to neutralize the range superiority in many cases, however. Klingon tactics were to send a *D-10* with a small escort of three to six destroyers into a system to secure it. Federation commanders would leave the system, making it appear unprotected; they would then return from several different directions and take the unsuspecting Klingons in flanking attacks. This tactic was not always successful, but it did deter the Klingons from mounting many attacks into the interior of Federation space. In the last months of the war, the Klingons faced the newly-developed phaser and photon torpedo, and the days of the *D-10* as the "Queen Of Battle" were over.

Of the 444 *D-10*As built, 27 are in reserve fleets, 268 have been converted to *D* models and 14 to *F* models, 106 have been destroyed, 8 have been captured (6 by Star Fleet and 2 by the Romulans), 6 are listed as missing, 7 have been scrapped, 6 have been sold to ranking families within the

Empire, and 2 have been sold to private interests in the Triangle.

The first modification to the *D-10* came on Stardate 2/1012, when the KIB-2 impulse drive system was replaced with the KID-2. Though the new *D-10B* was ordered into production, it never was produced in numbers because the KWE-2 warp drive system was brought into the navy's inventory just as the new *B* models were ready for installation of their warp drives. These engines were installed, and, on Stardate 2/1201, the first *D-10C* was taken out for maneuver trials. On Stardate 2/1205, the completed ships were outfitted with the newly-created KD-9 disruptors, KP-4 photon torpedo, and the KSO shield systems, replacing the original equipment with upgraded systems. The *D-10D* entered service on Stardate 2/1307 with the simultaneous commissioning of 23 ships, the largest number of new ships to be commissioned at one time in known space.

The KWE-2 warp drive system allows the *D-10D* to achieve cruising speeds of Warp 7 and emergency speeds of Warp 8, even though it adds 30,000 mt to the overall weight. The KD-9 disruptors produce slightly less damage than the KD-6 models found on the *D-10A*, but they have an increased range of 20,000 km. The real increase in weapons power lies in the KP-4 torpedo, which is mounted fore and aft. The addition of so many new systems required an increase in the superstructure strength.

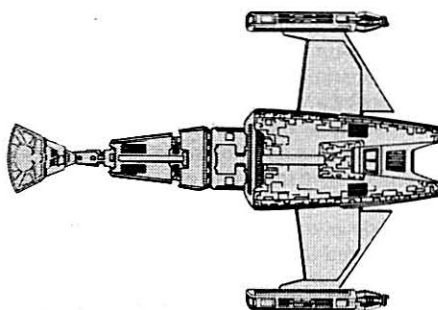
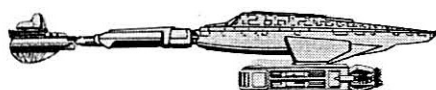
Of the 455 *D-10*Ds built, 389 remain in active service, 2 are used as training vessels, 47 have been destroyed, 2 have been captured by Star Fleet, 6 are listed as missing, 2 have been scrapped, 1 has been traded to the Romulans, 1 sold to the Orions, and 5 are in the service of ranking families of the Empire.

During the years 2/1002 to 2/1410, the Klingons created 5 new warp drive engines, 2 impulse drive systems, 5 new disruptor types, 4 photon torpedo types, 5 shield systems (of which 2 used a trinary power transformer), and 2 powerful computer systems. With all these new systems, the *D-10F*, incorporating many of them, was inevitable; it was commissioned on Stardate 2/1410. The KWE-3 engines produce 10% more power, and the KIE-1 impulse drive systems produce 50% more power than the systems installed on the *D* models, adding maneuverability. On Stardate 2/1312, the Klingons had acquired 14 Romulan plasma weapons of the RPL-1 type, and these weapons also were installed on the *D-10F*, instead of the photon torpedo. The KD-9 disruptors were replaced with KD-13s, increasing the range another 20,000 km, and the aft-firing KD-3s were replaced by 2 KD-9s and 2 KD-5s. The superstructure strength was increased by 16%, and the shields were upgraded.

After the completion of the *D-10F* models, the Klingons continued to use the Z'hai facility to construct *D-10*Gs, with two changes from the *F* model. The hypothermia capsules were removed and the area rebuilt as a laboratory facility, allowing the *D-10G* to act as a research cruiser in hostile areas where lightly-armed ships like the *D-9* could be easily destroyed or damaged if attacked while alone. To further augment weaponry, fore- and aft-firing photon torpedo bays were installed for the KP-4 torpedo.

On Stardate 2/2009, the *D-10H* was commissioned, the first model that has an exterior change. Instead of mounting the old style command pod, the ship mounted the command pod from the *L-9* frigate, making the class easier to identify on visual scan but a more potent adversary. This model mounts the new KIE-2 impulse drive system, giving it more maneuvering power than most ships in either the Romulan Navy or Star Fleet. The disruptors were all refitted to KD-13s, not only to give the vessels a longer range of fire in all directions but also to ease the maintenance chore. The photon torpedo bay was converted to fire the new KP-6, which causes as much damage as any of those employed by Star Fleet and twice the damage as any used by the Romulans. With this array of weapons, and with its strengthened superstructure, the *D-10H* is, by far, the most powerful of the class and also stronger than most others in space.

D-20 (Death Rite) CLASS VII CRUISER



Construction Data:

Model Numbers —	A	C	D
Date Entering Service —	1/9606-2/1603	2/1202	2/1701
Number Constructed —	382	271	87
Hull Data:			
Superstructure Points —	16	18	20
Damage Chart —	C	C	C
Size			
Length —	160 m	160 m	160 m
Width —	110 m	110 m	110 m
Height —	22 m	24 m	24 m
Weight —	85,400 mt	91,300 mt	95,600 mt
Cargo			
Cargo Units —	200 SCU	200 SCU	200 SCU
Cargo Capacity —	10,000 mt	10,000 mt	10,000 mt
Landing Capability —	None	None	None

Equipment Data:

Control Computer Type —	ZD-5	ZD-6	ZD-6
Transporters —			
standard 6-person	3	3	3
combat 22-person	4	4	4
emergency 18-person	1	1	1
cargo	2	2	2
Other Data:			
Crew —	330	340	340
Troops —	180	200	200
Shuttlecraft —	4	4	4

Engines And Power Data:

Total Power Units Available —	32	40	40
Movement Point Ratio —	4/1	3/1	3/1
Warp Engine Type —	KWC-1	KWC-2	KWC-2
Number —	2	2	2
Power Units Available —	14	18	18
Stress Charts —	L.O	L.O	L.O
Maximum Safe Cruising Speed —	Warp 7	Warp 8	Warp 8
Emergency Speed —	Warp 8	Warp 9	Warp 9
Impulse Engine Type —	KIC-2	KIC-2	KIC-2
Power Units Available —	4	4	4

Weapons And Firing Data:

Beam Weapon Type —	KD-5	KD-6	KD-8
Number —	6	6	6
Firing Arcs —	2f p, 1f, 1a, 2f/s	2f p, 1f, 1a, 2f/s	2f p, 1f, 1a, 2f/s
Firing Chart —	P	T	U
Maximum Power —	4	6	7
Damage Modifiers —			
+3			(1 - 7)
+2	(1 - 10)	(1 - 18)	(8 - 15)
+1	(11 - 18)		(16 - 20)

Shields Data:

Deflector Shield Type —	KSF	KSK	KSO
Shield Point Ratio —	2/3	1/2	1/2
Maximum Shield Power —	9	12	15

Combat Efficiency:

D WDF —	52.9/18.6	85.7/30.6	86.6/34.2
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Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: C

Major Data Source: Klingon Sector Intelligence

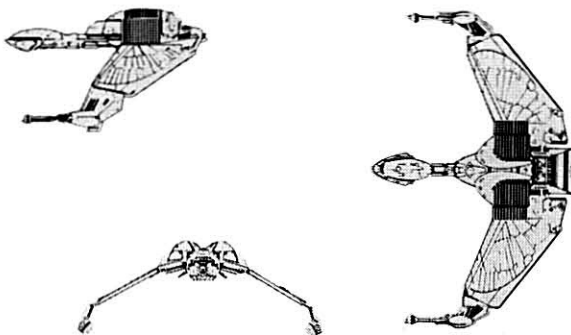
The D-20 was commissioned on Stardate 1/9606 and immediately rushed into the Four Years War, where they were used much like the famed D-7. Though the class suffered from lack of maneuver power and a relatively weak superstructure, it seemed to make up for these deficiencies in its weapons and shielding. Mounting the KWC-1 engines, the D-20A was able to attain higher warp speeds than the D-7, but was less maneuverable. Eighty-six have been converted to the D-20C.

This fault was corrected with the introduction of the D-20C on Stardate 2/1202. This model is far more maneuverable and has more power, as well as a more efficient shielding system and stronger superstructure. Because of its extra power, KD-6 disruptors were added, increasing firepower by 50%. This model is still in production even though the D-20D has entered service on Stardate 2/1701, mounting KD-8 disruptors, which deliver 16% more destructive power over a greater distance.

Of the 634 D-20s built, 224 Cs and 80 Ds remain in active service; 292 As, 19 Cs, and 1 D have been destroyed; 2 As, 4 Cs, and 1 D are listed as missing; 1 C and 1 D have been scrapped; and 2 As, 28 Cs, and 4 Ds are in the service of ranking and prominent families of the Empire. The class is being produced at Gnuu Re' and at H'rez. These facilities were originally set up to refit A models to C models, but when orders were issued for the production of the D model, Imperial Command redesignated both bases as production facilities. They began producing new ships as soon as the last of the older models had been refit. Both facilities combined produce a total of 13 ships per year.

The class is named from "the death of honor," a traditional death rite involving a silver dagger. In this rite, a captive who has fought well is killed with a silver dagger handed down through the family lines. When a family line is broken, the dagger is destroyed after it has been used to eliminate the last family member.

D-32 (Stronger Bird) CLASS VII CRUISER



Construction Data:

Model Numbers —	B	C
Ship Class —	VII	VII
Date Entering Service —	2/2004	2/2004
Number Constructed —	22	18

Hull Data:

Superstructure Points —	15	17
Damage Chart —	C	C
Size —		
Length —	110 m	110 m
Width —	161 m	161 m
Height —	21 m	21 m
Weight —	83,700 mt	89,300 mt

Cargo

Cargo Units —	30 SCU	30 SCU
Cargo Capacity —	1,500 mt	1,500 mt
Landing Capability —	Yes	Yes

Equipment Data:

Control Computer Type —	ZD-5	ZD-6
Transporters —		
standard 6-person	2	2
emergency 18-person	2	2
cargo	1	1
Cloaking Device Type —	KCC	KCC
Power Requirement —	32	32

Other Data:

Crew —	142	148
Passengers —	5	5
Troops —		
Shuttlecraft —	1	1

Engines And Power Data:

Total Power Units Available —	46	46
Movement Point Ratio —	4/1	4/1
Warp Engine Type —	KWC-1	KWC-1
Number —	2	2
Power Units Available —	14	14
Stress Charts —	L/O	L/O
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 8	Warp 8
Impulse Engine Type —	KIE-3	KIE-3
Power Units Available —	18	18

Weapons And Firing Data:

Beam Weapon Type —	KD-9	KD-9
Number —	4 in 2 banks of 2	4 in 2 banks of 2
Firing Arcs —	2f p, 2f s	2f p, 2f s
Firing Chart —	W	W
Maximum Power —	5	5
Damage Modifiers —		
+3	(1 - 7)	(1 - 7)
+2	(8 - 15)	(8 - 15)
+1	(16 - 20)	(16 - 20)

Missile Weapon Type —

Number —	1	RPL-1
Firing Arcs —	F	
Firing Chart —	E	
Power To Arm —	10	
Damage —	See chart	
Missile Weapon Type —	KP-5	KP-5
Number —	2	1
Firing Arcs —	1f, 1a	A
Firing Chart —	Q	Q
Power To Arm —	1	1
Damage —	10	10

Shields Data:

Deflector Shield Type —	KSD	KSK
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	10	13

Combat Efficiency:

D WDF —	68.5/31.0	75.3/29.4
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Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: C for D-32B; D for D-32C

Major Data Source: Klingon Sector Intelligence, Operation Dixie

The D-32 is one of the newest ships in the Klingon Imperial Navy, the direct result of the latest Klingon-Romulan technology exchange. On Stardate 2/1801, as part of their arrangement, the Romulans supplied the Klingons with seven S-11 Class V scoutships and the plans to construct them. The Klingons had supplied some of the technology and design for the Romulan S-11 in the first place, and they were eager to begin construction of these vessels. In fact, they had been secretly planning to produce not only scouts but to enlarge the design to a cruiser and frigate model. While the negotiations were in session, the Klingons were tooling up and producing the pieces for the larger ships, and the compartment that would house the warp and impulse drive systems along with the central wing adjustment mechanism were in production when the treaty was signed.

The most interesting aspect of the S-11 design is the movable wings, which are positioned straight out for normal cruise, down for attack, and up for atmospheric operation. In the attack mode, the ship presents a smaller target and the disruptors mounted at the wingtips have a better field of fire. In the atmospheric-flight mode, the wings take advantage of the aerodynamic design of the ship, and, in the cruise mode, the wings create a more structurally-sound design that can withstand the forces of high warp speeds. The D-32 design incorporated these features.

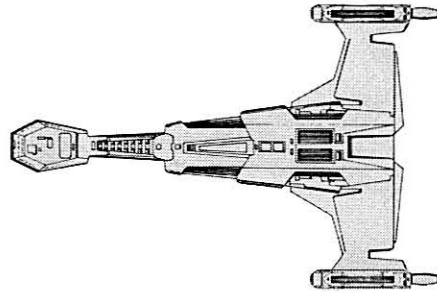
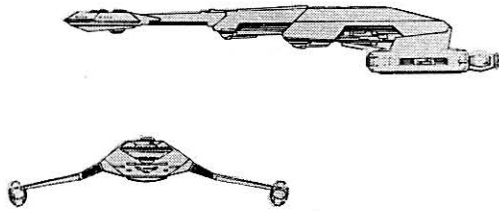
The first cruiser model, the D-32A, lacked the maneuverability that the Klingons desired and was modified immediately to the D-32B, the first of which was commissioned on Stardate 2/2004, only 18 months after the first S-11s were received. The ship mounts a very powerful impulse drive system that delivers 40% of the total maneuver power and gives the ship its ability to perform atmospheric operations. The weaponry is the standard mixture of disruptors and photon torpedoes; the disruptors cover all fields of fire, and the photon torpedoes are mounted both fore and aft.

The D-32C is reported to have a Romulan plasma weapon of the RPL-1 type instead of the forward-firing photon bay. It also reputedly uses the KSK shielding system, which is slightly more efficient than KSD installed on the D-32B, and the superstructure is thought to be stronger. The KCC Klingon cloaking device is used on both models, but it should prove more effective on the D-32C because of the plasma bolt weaponry.

Of the 40 D-32s built, 39 remain in active service and 1 has been destroyed. Information obtained from Operation Dixie revealed that the class is produced at H'renn. Undocumented information suggests that Mustaka is being tooling up for production of these vessels.

The class name is from the Klingon *z'gavva*, which translates to "stronger bird".

D-2 (Stingtongue) CLASS VI DESTROYER



Construction Data:

Model Numbers —	A	B
Date Entering Service —	2/1201	2/1206
Number Constructed —	146	144

Hull Data:

Superstructure Points —	10	10
Damage Chart —	C	C
Size		
Length —	205 m	205 m
Width —	135 m	135 m
Height —	30 m	30 m
Weight —	74,500 mt	74,500 mt

Cargo

Cargo Units —	30 SCU	30 SCU
Cargo Capacity —	1,500 mt	1,500 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	ZD-5	ZD-5
Transporters —		
standard 6-person	2	2
emergency 18-person cargo	2	2
	1	1

Other Data:

Crew —	220	220
Passengers —	10	10
Shuttlecraft —	1	1

Engines And Power Data:

Total Power Units Available —	34	34
Movement Point Ratio —	3/1	3/1
Warp Engine Type —	KWC-1	KWC-1
Number —	2	2
Power Units Available —	14	14
Stress Charts —	L/O	L/O
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 8	Warp 8
Impulse Engine Type —	KID-1	KID-1
Power Units Available —	6	6

Weapons And Firing Data:

Beam Weapon Type —	KD-6	KD-6
Number —	2	2
Firing Arcs —	1f/p/s, 1a/p/s	1f/p/s, 1a/p/s
Firing Chart —	T	T
Maximum Power —	6	6
Damage Modifiers —		
+2	(1 - 18)	(1 - 18)
Missile Weapon Type —	KP-2	KP-2
Number —	4	4
Firing Arcs —	2f, 2a	4f
Firing Chart —	H	H
Power To Arm —	1	1
Damage —	10	10

Shields Data:

Deflector Shield Type —	KSN	KSN
Shield Point Ratio —	2/3	2/3
Maximum Shield Power —	15	15

Combat Efficiency:

D/WDF —	69.3/23.4	69.3/23.4
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Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: A for D-2A; C for D-2B

Major Data Source: D-2A in Star Fleet possession; Klingon Sector Intelligence

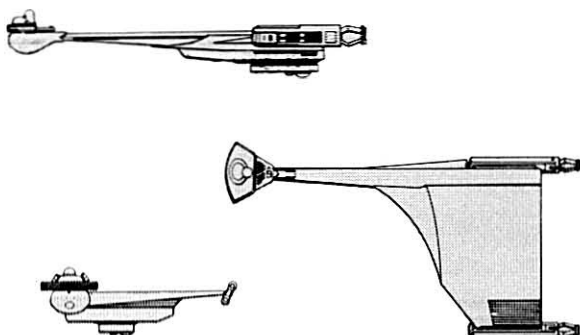
Shortly after the discovery of photon technology, the Klingon Imperial Navy initiated a program for a missile-armed destroyer. Several designs were reviewed and tested before the D-2A was commissioned on Stardate 2/1201. Five months later, the D-2B entered service, different only in the arrangement of its torpedo bays. The D-2 is an excellent offensive weapon against ships of its own class, but it is not able to hold its own against larger ships due to the lack of range its torpedoes have and a relatively weak superstructure.

These missile boats mount KWC-1 warp engines, which gives them good tactical maneuverability. Each mounts two KD-6 disruptors covering all areas of fire as well as four KP-2 photon torpedoes. The D-2A's torpedo bays are split evenly forward and aft, allowing it to close with and pass through the enemy's formation, firing torpedoes into usually unprotected aft areas. All the D-2B's torpedo bays are mounted forward, giving a tremendous amount of punch from the front but none from the rear.

Of the 290 D-2s built, 128 As and 135 Bs remain in active service; 12 As and 8 Bs have been destroyed; 1 B has been captured by the Romulans; 2 As are listed as missing; 1 A has been scrapped; and 2 As are in the service of prominent families of the Empire. The D-2 class is produced at Iosia and H'renn. Intelligence estimates these facilities produce a combined average of twelve of each type per month.

The class is named from the Klingon *v'kar zadan*, which translates to "the tongue that stings".

D-11 (One Wing) CLASS VI - VII DESTROYER



Construction Data:

Model Numbers —	B	C	D
Ship Class —	VI	VII	VII
Date Entering Service —	2/0405 - 2/1804	2/0811	2/1201
Number Constructed —	140	153	61

Hull Data:

Superstructure Points —	14	14	15
Damage Chart —	C	C	C
Size			
Length —	234 m	234 m	234 m
Width —	128 m	128 m	128 m
Height —	34 m	34 m	45 m
Weight —	79,900 mt	80,500 mt	85,000 mt
Cargo			
Cargo Units —	120 SCU	120 SCU	120 SCU
Cargo Capacity —	6,000 mt	6,000 mt	6,000 mt
Landing Capability —	None	None	None

Equipment Data:

Control Computer Type —	ZD-5	ZD-5	ZD-6
Transporters —			
standard 6-person	2	2	2
combat 22-person	2	2	2
emergency 18-person	2	2	2
cargo	1	1	1

Other Data:

Crew —	218	218	225
Passengers —	220	220	220
Shuttlecraft —	2	2	3

Engines And Power Data:

Total Power Units Available —	32	32	40
Movement Point Ratio —	3/1	3/1	3/1
Warp Engine Type —	KWC-1	KWC-1	KWC-2
Number —	2	2	2
Power Units Available —	14	14	18
Stress Charts —	L/O	L/O	L/O
Maximum Safe Cruising Speed —	Warp 7	Warp 7	Warp 8
Emergency Speed —	Warp 8	Warp 8	Warp 9
Impulse Engine Type —	KIC-2	KIC-2	KIC-2
Power Units Available —	4	4	4

Weapons And Firing Data:

Beam Weapon Type —	KD-4	KD-5	KD-9
Number —	2	2	2
Firing Arcs —	1f p, 1a's	1f p, 1a's	1f p, 1a's
Firing Chart —	J	P	W
Maximum Power —	4	4	5
Damage Modifiers —			
+3			(1 - 7)
+2		(1 - 10)	(8 - 15)
+1	(1 - 10)	(11 - 18)	(16 - 20)
Beam Weapon Type —		KD-10	KD-11
Number —		1	1
Firing Arcs —		F	F
Firing Chart —		C	F
Maximum Power —		3	5
Damage Modifiers —			
+2			(1 - 4)
+1		(1 - 6)	(5 - 8)
Missile Weapon Type —			KP-1
Number —			2
Firing Arcs —			1f, 1a
Firing Chart —			F
Power To Arm —			1
Damage —			6

Shields Data:

Deflector Shield Type —	KSJ	KSJ	KSJ
Shield Point Ratio —	2/3	2/3	2/3
Maximum Shield Power —	13	13	13

Combat Efficiency:

D/WDF —	60.9/4	60.9/6.9	68.5/13.2
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Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: B

Major Data Source: Klingon Sector Intelligence, Triangle Sector Intelligence

The *D-11* destroyer is the most unusual design in the Klingon Imperial Navy, easily recognized on visual scan because of its one wing. It was commissioned into the service on Stardate 2/0405. That the vessel never fared well in battle has been blamed on its asymmetrical design, which worked to restrict the field of fire from the weapon mounting hardpoints.

Powered by the KWC-1 and able to travel at speeds of Warp 7, it was one of the fastest ships in known space at the time it was commissioned, as well as having satisfactory tactical maneuverability. Nevertheless, the first *D-11s* were unpopular with the crews for they lacked sufficient firepower to perform their duties. It is not surprising then that a weaponry modification was made in the *D-11C*, in which the KD-4s were replaced with KD-5s and the new KD-10 was added. Although this extended the offensive range by 80,000 km, the *D-11's* performance in battle was not significantly improved.

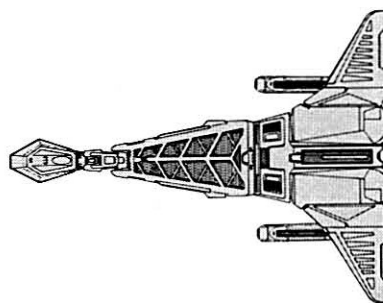
The *D-11D* used the KWC-2 warp engine, increasing the warp speeds attainable. It also mounted the new photon torpedo, which gave it more destructive firepower in a limited range but did little to improve battle performance overall.

Due to its problems and the success of other destroyer designs, the mission of the *D-11* has been changed. These vessels are now used for light assault duties. Having the capacity to carry a company of marines, the *D-11s* are used to secure lightly-held systems. They also have been reported to be accompanying the *D-9* research cruisers in their efforts to open new territories.

Of the 354 *D-11s* built, 106 *Cs* and 41 *Ds* remain in active service; 68 *Bs*, 39 *Cs* and 18 *Ds* have been destroyed; 1 *D* has been captured by the Romulans; 11 *Bs* and 2 *Cs* are listed as missing; 19 *Bs* and 4 *Cs* have been scrapped; 6 *Bs*, 2 *Cs*, and 2 *Ds* have been sold to the Orions; and 12 *As* have been sold to private interests in the Triangle. The *D-11* is no longer under production; it was manufactured at Taamar and H'renn.

The class name of "One Wing" and its nickname of "The One-Armed Bandit" derive obviously from its design, as well as from the Klingon *dath d'lan*. Many jokes circulate through Star Fleet concerning the design. The most long-lived of these has it that the designer was under pressure to have the design completed by a certain date. In order to satisfy his contract and spare his life, goes the story, the manufacturer completed the ship minus the starboard wing assembly.

D-14 (Stinger) CLASS VI DESTROYER



Construction Data:

Model Numbers —	A	B
Ship Class —	VI	VI
Date Entering Service —	2/1607	2/2008
Number Constructed —	142	66

Hull Data:

Superstructure Points —	15	15
Damage Chart —	C	C
Size		
Length —	220 m	220 m
Width —	170 m	170 m
Height —	42 m	42 m
Weight —	59,800 mt	60,100 mt

Cargo

Cargo Units —	80 SCU	80 SCU
Cargo Capacity —	4,000 mt	4,000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	ZD-5	ZD-5
Transporters —		
standard 6-person	2	3
emergency 18-person	2	2
cargo	1	1
Cloaking Device Type —	None	KCB
Power Requirement —		22

Other Data:

Crew —	285	292
Passengers —	30	30
Shuttlecraft —	2	2

Engines And Power Data:

Total Power Units Available —	40	40
Movement Point Ratio —	3/1	3/1
Warp Engine Type —	KWC-3	KWC-3
Number —	1	1
Power Units Available —	22	22
Stress Charts —	L/M	L/M
Maximum Safe Cruising Speed —	Warp 6	Warp 6
Emergency Speed —	Warp 7	Warp 7
Impulse Engine Type —	KIE-3	KIE-3
Power Units Available —	18	18

Weapons And Firing Data:

Beam Weapon Type —	KD-6	KD-6
Number —	4	4
Firing Arcs —	1p/a, 2f/p/s, 1s/a	1p/a, 2f/p/s, 1s/a
Firing Chart —	T	T
Maximum Power —	6	6
Damage Modifiers —		
+2	(1 - 18)	(1 - 18)
Missile Weapon Type —	KP-1	KP-2
Number —	2	2
Firing Arcs —	1f, 1a	1f, 1a
Firing Chart —	F	H
Power To Arm —	1	1
Damage —	6	10

Shields Data:

Deflector Shield Type —	KSG	KSG
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	11	11

Combat Efficiency:

DWDF —	74.5/23.4	74.5/27.0
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Notes:

Known Sphere Of Operation:

Federation and Triangle Borders

Data Reliability: C

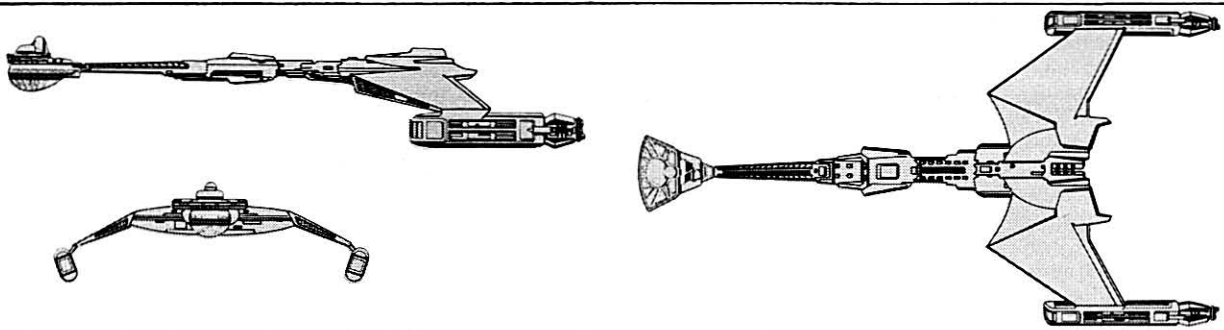
Major Data Source: Triangle Sector Intelligence

Two models of this destroyer have been produced. Twelve *D-14Bs* are equipped with the KCB cloaking device. The class name, from the Klingon *d'esta kar*, refers to a predator on the planet Nogunda; this creature immobilizes its prey by injecting a paralyzing agent through its stinger.

Of the 208 *D-14s* built, 119 *As* and 61 *Bs* remain in active service; 20 *As* and 1 *B* have been destroyed; 2 *As* and 1 *B* have been listed as missing; and 1 *B* has been traded to the Romulans, 1 *A* has been sold to the Orions, and 2 *Bs* have been sold to private interests in the Triangle. The *D-14* is under production at Taamar, H'renn, and Fonawl. The combined annual rate is 20 of each type.



D-16 (Swiftwind) CLASS VI DESTROYER



Construction Data:

Model Numbers —	A
Ship Class —	VI
Date Entering Service —	1/8805 — 2/1001
Number Constructed —	192

Hull Data:

Superstructure Points —	8
Damage Chart —	C
Size	
Length —	190 m
Width —	100 m
Height —	28 m
Weight —	70,800 mt

Cargo

Cargo Units —	30 SCU
Cargo Capacity —	1,500 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	ZD-5
Transporters —	
standard 6-person	2
emergency 18-person	1
cargo	1

Other Data:

Crew —	180
Passengers —	10
Shuttlecraft —	1

Engines And Power Data:

Total Power Units Available —	30
Movement Point Ratio —	3/1
Warp Engine Type —	KWC-1
Number —	2
Power Units Available —	14
Stress Charts —	L/O
Maximum Safe Cruising Speed —	Warp 7
Emergency Speed —	Warp 8
Impulse Engine Type —	KIB-2
Power Units Available —	2

Weapons And Firing Data:

Beam Weapon Type —	KD-2
Number —	4
Firing Arcs —	3f/p/s, 1a
Firing Chart —	G
Maximum Power —	4
Damage Modifiers —	
+1	(1 — 10)

Shields Data:

Deflector Shield Type —	KSC
Shield Point Ratio —	1/1
Maximum Shield Power —	9

Combat Efficiency:

D/WDF —	38.4/5.6
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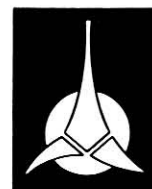


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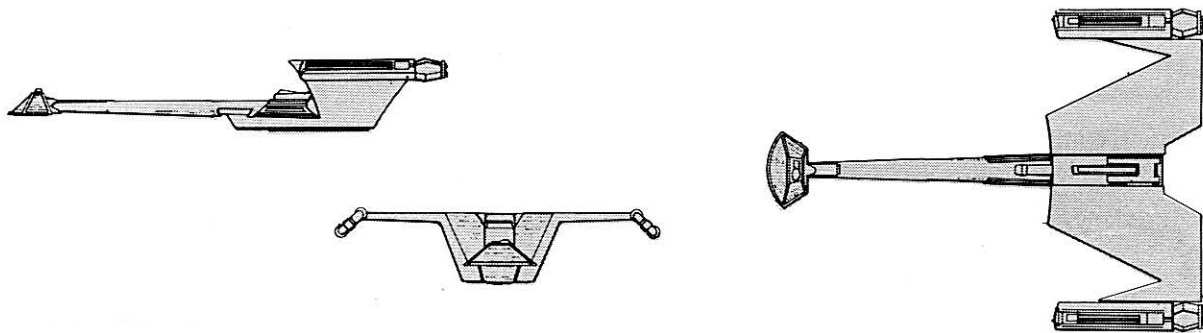
Known Sphere Of Operation: Interior of Klingon Empire
Data Reliability: A

Major Data Source: In possession of Star Fleet

Of the 192 D-16s built, 27 are in reserve fleets, 123 have been destroyed, 11 have been captured (6 by Star Fleet, 4 by Romulans and 1 by Orions), 8 are listed as missing, 3 have been scrapped, 16 have been sold to ranking and prominent families in the Empire, and 4 have been sold to private interests within the Triangle. The D-16, named from the Klingon *kl'sarza*, was produced at Iosia.



D-18 (Gull) CLASS VII - IX DESTROYER



Construction Data:

Model Numbers —	A	B	C
Ship Class —	VII	IX	IX
Date Entering Service —	2/0108-2/1512	2/1110	2/1803
Number Constructed —	231	358	82

Hull Data:

Superstructure Points —	14	14	14
Damage Chart —	C	C	C
Size			
Length —	215 m	212 m	212 m
Width —	159 m	159 m	159 m
Height —	38 m	38 m	38 m
Weight —	90,500 mt	125,500 mt	125,800 mt

Cargo

Cargo Units —	65 SCU	70 SCU	70 SCU
Cargo Capacity —	3,250 mt	3,500 mt	3,500 mt
Landing Capability —	None	None	None

Equipment Data:

Control Computer Type —	ZD-5	ZD-6	ZD-6
Transporters —			
standard 6-person	2	2	2
emergency 18-person	2	2	2
cargo	1	1	1
Cloaking Device Type —	None	None	KCC
Power Requirement —			32

Other Data:

Crew —	265	265	280
Passengers —	20	20	20
Shuttlecraft —	12	12	12

Engines And Power Data:

Total Power Units Available —	38	42	42
Movement Point Ratio —	4/1	3/1	3/1
Warp Engine Type —	KWD-1	KWE-3	KWE-3
Number —	2	2	2
Power Units Available —	18	20	20
Stress Charts —	L/N	J/M	J/M
Maximum Safe Cruising Speed —	Warp 6	Warp 8	Warp 8
Emergency Speed —	Warp 8	Warp 9	Warp 9
Impulse Engine Type —	KIB-2	KIB-2	KIB-2
Power Units Available —	2	2	2

Weapons And Firing Data:

Beam Weapon Type —	KD-5	KD-5	KD-5
Number —	2	6	6
Firing Arcs —	1f/p, 1f/s	2f/p, 2f, 2f/s	2f/p, 2f, 2f/s
Firing Chart —	P	P	P
Maximum Power —	4	4	4
Damage Modifiers —			
+2	(1 - 10)	(1 - 10)	(1 - 10)
+1	(11 - 18)	(11 - 18)	(11 - 18)
Beam Weapon Type —	KD-14	KD-14	KD-14
Number —	1	1	1
Firing Arcs —	A	A	A
Firing Chart —	D	D	D
Maximum Power —	8	8	8
Damage Modifiers —			
+2	(1 - 6)	(1 - 6)	(1 - 6)
Missile Weapon Type —			KP-5
Number —			1
Firing Arcs —			A
Firing Chart —			Q
Power To Arm —			1
Damage —			10

Shields Data:

Deflector Shield Type —	KSE	KSE	KSD
Shield Point Ratio —	1/1	1/1	1/2
Maximum Shield Power —	10	8	8

Combat Efficiency:

D-WDF —	47.5/8.3	54.0/20.7	71.0/26.2
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Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: A for D-18A and D-18B; C for D-18C

Major Data Source: A and B models in Star Fleet possession;
Klingon Sector Intelligence

The D-18, by far the most widely-used destroyer in the Klingon Imperial Navy, is found in every region of Klingon space and in the Triangle. There are even reports of D-18 groups accompanying research efforts in the spinward areas.

Like other Klingon vessels, the D-18 has the command pod forward of the main hull, though the boom or neck is considerably smaller than on other designs. The thin neck has no storage compartments or uses other than to contain a horizontal turbolift. The pod has jettison mechanism coupled with a small impulse drive system, but, unlike other self-contained pods, it contains no weapons. All the bridge crew quarters are located in the pod, as are food synthesizers and life-support systems.

The main hull of the D-18 is very large and spacious, featuring the very effective compartmented design to reduce decompressive explosion in case of penetration. The warp drives are mounted at the outer edge of the wings, giving the ship a gull-wing appearance and its nickname. The warp engines may be jettisoned in case of an overload, leaving the hull to operate with its impulse drive system located center-aft. Inside the hull, forward of the impulse drive, is the engineering section for the entire ship, occupying a roomy eight decks. Forward of engineering, in the center-forward area of the main hull just above the connecting point for the boom, is the impressive shuttle bay, containing space for twelve shuttlecraft, more than most major warships. The beam weapons are mounted on the underside of the main hull, with the forward-firing KD-5s at the corners and center of the hull and the aft-firing KD-14 centrally mounted; in later models, the KD-14 is mounted on the bottom of the torpedo bay.

The Klingons call the class *Lara'atan*, which translates to "protector of brothers". The class is more commonly referred to as "Gull" by Star Fleet personnel, an obvious reference to its appearance.

When the D-18A entered service on Stardate 2/0108, the military situation along all borders was relatively calm. The Klingons, still recovering from the war with the Federation, did not wish to antagonize Star Fleet any more than necessary, so the first groups of D-18As were placed along the Romulan and Triangle borders. For three years, the D-18As performed patrol duties without incident.

In the ship's first combat test, three D-18s were ordered into the Triangle to intercept a Romulan convoy and destroy the transports. Intelligence reports had shown that there would be an escort of only one ship, a new R-4 about which nothing was known. The D-18s approached the convoy from three different directions, hoping to catch the escort with flanking fire and dispatch it easily. The R-4 was not alone, however, but was accompanied by another R-4. The Klingons began firing as soon as they were in range. In response, the Romulans concentrated all fire on first one of the D-18s and then another, doing heavy damage. The Klingon captains realized that their ships were underpowered and undergunned for this type of mission, and began a fighting withdrawal; one survived.

This engagement showed the Imperial Command that the D-18 needed more efficient engines and a better array of weapons. As originally designed, the pod on the D-18A did carry beam weapons, but, by Stardate 2/1512, all of the old A models had been converted to Bs.

Of the 231 D-18As built, 156 have been converted to Bs, 62 have been destroyed, 4 (3 by the Romulans and 1 by Star Fleet) have been captured, 2 are listed as missing, 3 have been scrapped, and 3 have been sold to private interests in the Triangle.

The D-18B and later models have command pods with an angular appearance and no weaponry. In addition, the D-18B mounts the highly efficient KWE-3 warp drive system, giving cruising speeds of Warp 8 and emergency speeds of Warp 9, making the D-18B one of the fastest ships in known space, and providing more maneuverability and more power to the weapons systems. The addition of four more KD-5 disruptors gives this model the firepower lacking in the D-18A. The only drawback of this model is that when the additional engine mass was added, the effectiveness of the shield generators decreased.

The D-18B, the most common model to be encountered, has served the Klingon Imperial Navy well and has been involved in many encounters both with the Federation and Romulans. The most notable of these is "The Kargon Incident". In this skirmish, Captain Kresz sutai Kargon, commanding a group of six D-18Bs, attacked a Federation outpost located in the Orion sector. Responding to the outpost's distress call was the *USS Kongo* (a *Constitution* class cruiser) accompanied by the *USS Halk* and *USS Rome* (both *Loknar* class frigates). The Federation ships arrived too late to save the outpost, but not too late to engage the Klingons. Detecting only three ships on sensors, one with severe damage and the others with minor damage, Captain J.C. Fredriksen of the *Kongo* ordered the *Loknars* to close with the Klingons and demand their surrender.

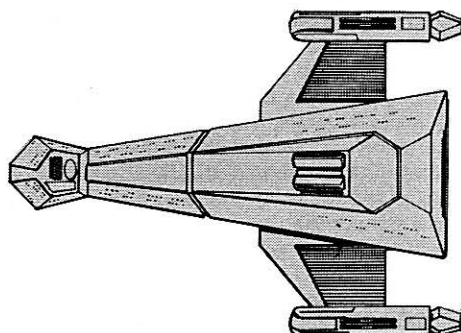
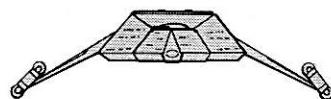
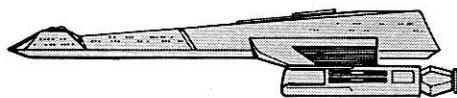
In the meantime, the *Kongo* approached the D-18 lying dead in space. As the *Kongo* neared the vessel, sensors picked up three ships coming out of warp to the rear and the systems aboard the dead ship coming to life. Captain Fredriksen ordered the Helmsman to turn hard about, but it was too late. The damaged D-18 destructed with such tremendous force that the *Kongo's* starboard warp nacelle was ripped from the hull and the port engine damaged beyond repair. The incoming D-18s fired into the burning wreck of the *Kongo* and completed the deed their comrades had begun. The *Halk* was so taken by surprise that it, too, never had a chance to return fire, and the first volley of shots from the oncoming D-18s totally destroyed the frigate. The *Rome*, however, opened fire on one of the disabled D-18s and scored two photon torpedo hits on its bridge and numerous phaser hits to its engines. The *Rome* then turned on the other disabled D-18 and began firing as fast as it could, scoring hits with every shot. The D-18s rushing in from their attack on the *Halk* fired in unison, and the *Rome*, though it had fought valiantly, suffered the same fate as the other two Star Fleet vessels. News of this attack reached Star Fleet three days later when a communications marker from the *Rome* was retrieved. From this report, it was also learned that the Klingon ships in this engagement were painted in bright blue colors. Ships of this description have been seen in and near the Triangle. Whether they are the ships of Captain Kresz sutai Kargon is unknown.

Of the 358 D-18Bs built, 257 remain in active service, 2 are used as training vessels, 82 have been destroyed, 9 have been captured (5 by Star Fleet and 4 by the Romulans), 4 are listed as missing, 1 has been scrapped, and 3 are in the service of ranking families in the Empire. The D-18B is currently being produced at the construction facilities located at H'renn and Iosia. These facilities have an average production rate of 20 ships per year.

The D-18C has an aft-firing photon torpedo, added to cover the weak spot of the ship. It also mounts a KSD shield generator, which has a binary transformer that produces shielding at twice the level of efficiency as the KSE system found on the D-18B.

Of the 82 D-18Cs built, 75 remain in active service, 4 have been destroyed, 1 is listed as missing, and 2 have been sold to private interests in the Triangle. The D-18C is currently being produced at Taamar, Fonawl, and Mustaka. Information received from Operation Dixie indicates that these facilities have a combined production rate of 18 per year.

K-23 (Little Killer) CLASS VI - VIII ESCORT



Construction Data:

Model Numbers —	A	B	D	E	F
Ship Class —	VI	VII	VII	VII	VII
Date Entering Service —	1/9702-2/0501	2/0101-2/1601	2/1403	2/1606	2/1808
Number Constructed —	186	332	461	166	101

Hull Data:

Superstructure Points —	12	12	14	14	16
Damage Chart —	C	C	C	C	C
Size					
Length —	194 m	194 m	194 m	194 m	194 m
Width —	138 m	138 m	138 m	138 m	138 m
Height —	38 m	38 m	38 m	38 m	38 m
Weight —	77,250 mt	87,300 mt	90,400 mt	90,500 mt	95,800 mt
Cargo					
Cargo Units —	45 SCU	45 SCU	45 SCU	45 SCU	45 SCU
Cargo Capacity —	2,250 mt	2,250 mt	2,250 mt	2,250 mt	2,250 mt
Landing Capability —	None	None	None	None	None

Equipment Data:

Control Computer Type —	ZD-5	ZD-5	ZD-5	ZD-5	ZD-5
Transporters —					
standard 6-person cargo	1	1	1	1	1

Other Data:

Crew —	170	175	175	175	175
Passengers —	15	15	15	15	15
Shuttlecraft —	2	2	2	2	2

Engines And Power Data:

Total Power Units Available —	32	40	40	40	42
Movement Point Ratio —	4/1	4/1	4/1	4/1	4/1
Warp Engine Type —	KWC-2	KWD-1	KWD-1	KWD-1	KWD-1
Number —	2	2	2	2	2
Power Units Available —	14	18	18	18	18
Stress Charts —	L/O	L/N	L/N	L/N	L/N
Maximum Safe Cruising Speed —	Warp 7	Warp 6	Warp 6	Warp 6	Warp 6
Emergency Speed —	Warp 8	Warp 8	Warp 8	Warp 8	Warp 8
Impulse Engine Type —	KIC-2	KIC-2	KIC-2	KIC-2	KID-1
Power Units Available —	4	4	4	4	6

Weapons And Firing Data:

Beam Weapon Type —	KD-4	KD-4	KD-4	KD-13	KD-9
Number —	3	3	2	3 1 bank of 2	6 1 bank of 2
Firing Arcs —	1f/p, 1f/s	1f/p, 1f, 1f/s	1f/p, 1f/s	2f/p/s, 1f	2f/p/s, 2f, 2a
Firing Chart —	J	J	J	X	W
Maximum Power —	4	4	4	5	5
Damage Modifiers —					
+3				(1 - 9)	(1 - 7)
+2				(10 - 15)	(8 - 15)
+1	(1 - 10)	(1 - 10)	(1 - 10)	(16 - 22)	(16 - 22)
Beam Weapon Type —			KD-13		
Number —			1		
Firing Arcs —			F		
Firing Chart —			X		
Maximum Power —			5		
Damage Modifiers —					
+3			(1 - 8)		
+2			(9 - 15)		
+1			(16 - 22)		

Shields Data:

Deflector Shield Type —	KSE	KSI	KSF	KSF	KSK
Shield Point Ratio —	1/1	1/1	2/3	2/3	1/2
Maximum Shield Power —	10	12	10	10	13

Combat Efficiency:

D/WDF —	39.8/6	48.7/6	56.0/9.7	56.0/17.1	71.9/30
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Notes:

Known Sphere Of Operation: Empire-wide use
Data Reliability: A for K-23A, K-23B, and K-23D; C for K-23E;
D for K-23F

Major Data Source: Models A, B, and D in Star Fleet possession; Klingon Sector Intelligence

As the Four Years War dragged on and the Klingon lines of supply grew longer, it became apparent to the Klingon Imperial Command that ships designed to perform escort duties were needed. This need had been foreseen when the war was in its planning stages, but the tenacity of Star Fleet was unexpected as the Klingons had never fought a protracted war. The shortage of combat vessels at the front would only permit the Klingons to detail lone destroyers as escorts, but as the raids mounted, the High Command began pulling more and more ships from the front to protect the much-needed supplies. By Stardate 1/97, the advances into Federation territory had stalled, and the K-23 was put into production to end the impasse.

When the K-23, perhaps the most deadly escort vessel in known space, was commissioned into service in 1/9702, its appearance seemed to signify an end to a Klingon tradition in ship design. Earlier designs were a blend of rounded surfaces ending in sharp lines, and the K-23 was a wedge of angular, flat surfaces with no boom or command pod, and no large main hull flying along behind.

The most notable reason for the change in design concept had to do with the war against the Federation. The first and foremost of these was the confusion factor. The Klingons decided to begin a propaganda war against the UFP, and the K-23 was to play a key role. Its angular design would not be readily identifiable as Klingon, and the confusion sowed by this uncertainty could only benefit the Klingon cause. The Klingons started rumors about having an unknown ally, and supported this propaganda by crewing the first K-23s operating in the war zone with Romulan-fusion Klingons. So complete was this ruse that the crewmembers were trained in a battle-language known only to themselves. These hand-picked crews had orders that they were never to be taken prisoners nor was their ship ever to fall into enemy hands, tactics that were to give the class its name (from the Klingon *talat kh'exesta*).

The decision to mount the KWC-1 warp drive system on the earliest K-23s produced was one of economics. Though the original plans for the K-23 called for the more powerful KWD-1 system, not only was the KWC cheaper but it was being produced at the same shipyards as the K-23. This savings in time and money would cost the vessels some of their maneuverability, but, in the Klingon mind, this was a favorable trade-off for being able to produce ships rapidly enough to continue the offensive against the Federation. Even so, the K-23A could cruise at Warp 7, fast enough for the ships to shuttle between convoys travelling at Warp 6 and provide them more protection. The early-model vessels mounted three KD-4 disruptors, each with independent fire control stations, giving them the ability to deliver a more destructive blow than most of the vessels in Star Fleet.

Of the 186 K-23As built, 129 have been converted to Bs, 54 have been destroyed, and 3 have been captured by Star Fleet. Production of the K-23A was halted shortly after the war in response to an Imperial Command order that shipyards would begin producing major components required for the vessels made at their facilities. The result of this order was the K-23B.

The KWD-1 warp drive system mounted on the K-23B delivers more power at the same efficiency rating. Though it is only capable of cruising at Warp 6, the reduction in cruising speed did not effect maneuverability. An improved shield generator also was installed, with the KSI shielding system deliver more protection.

On Stardate 2/1309, the B models were given a general recall, and, by Stardate 2/1601, the refit to the K-23D was complete on all existing vessels. Of the 332 K-23Bs built or converted, 289 have been converted to D models (72 of these were converted A models), 28 have been destroyed, 3 have been captured (2 by the Romulans and 1 by Star Fleet), 6 are listed as missing, 4 have been scrapped, and 2 have been sold to the Orions.

The K-23D was introduced on Stardate 2/1403 with the commissioning of 33 converted B models and 4 newly-built ships. The new model was given a more efficient shield generator, though it actually delivered less protection to any one area. The superstructure was strengthened, and the addition of the KD-13 disruptor increased the offensive range by 120% and the destructive power by 25%. This increase in firepower seems impressive but, in light of existing phaser technology, the K-23D is actually undergunned. With only one of its three disruptors able to fire at 220,000 km and the other two at 100,000 km, the escorts are not able to defend against larger vessels that can stand off at extreme range and deliver multiple blows. This shortcoming has been overcome by increasing the number of vessels escorting a convoy.

Of the 416 K-23Ds built, 322 remain in active service, 24 are in reserve fleets, 4 are used as training vessels, 47 have been destroyed, 5 have been captured (3 by the Romulans and 2 by Star Fleet), 6 are listed as missing, 3 have been scrapped, 2 have been traded to private interests in the Triangle, and 3 have been sold to prominent families within the Empire. Since the introduction of the vessel, the shipyards at Taamar and Iosia have been producing K-23Ds at an approximate rate of 14 per year.

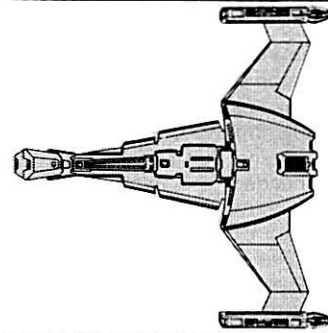
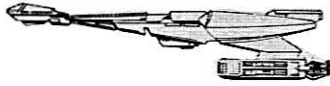
Soon after the K-23D entered service, the K-23E was introduced with all disruptors upgraded to the KD-13, giving the ships the ability to engage their targets at extended ranges. Even with this increase in offensive range, the K-23s are still found in large groups. The escorts usually operate in flights of three, and one flight will be dispatched with every group of nine transports or freighters. During the Four Years War, the practice had been one escort per nine ships.

Of the 166 K-23Es built, 139 remain in active service, 19 have been destroyed, 3 are listed as missing, 1 has been traded to the Orions, and 4 are in the service of ranking families of the Empire. They are being produced at the facilities of Taamar, Iosia, and H'renn at an approximate rate of 20 per year.

The K-23F, never directly encountered by Star Fleet, is reported to use the KID-2 impulse drive system and to mount six KD-9 disruptors with fields of fire that include the aft sector. The new weapon arrangement is said to be easily identified by the large, ball-mounted disruptor emplacement on the underside of the bridge and amidships. The K-23F also reportedly has a strengthened superstructure and a more efficient shielding system as well. Ship data experts feel the increased abilities of the K-23 have made it a most dangerous foe.

The K-23F is rarely seen along Federation borders or in the Triangle. Of the about 100 K-23Fs thought to have been built, approximately 80 remain in active service. The disposition of the remaining vessels is unknown at the time of this printing. Intelligence data gathered by Operation Dixie suggests that these vessels are being used along the Klingon coreward borders. The entire complement of vessels constructed at H'renn and Iosia have been sent to this area, though it appears that only half of those produced at Taamar have been sent coreward. This would account for the limited number sighted by Star Fleet and the Romulans.

K-24 (Winner) CLASS VII ESCORT



Construction Data:

Model Numbers —	A
Ship Class —	VII
Date Entering Service —	2/1202
Number Constructed —	120

Hull Data:

Superstructure Points —	12
Damage Chart —	C
Size	
Length —	98 m
Width —	100 m
Height —	24 m
Weight —	81,000 mt

Cargo

Cargo Units —	55 SCU
Cargo Capacity —	2,750 mt
Landing Capability —	Yes

Equipment Data:

Control Computer Type —	ZD-6
Transporters —	
standard 6-person	2
emergency 18-person	1
cargo	1

Other Data:

Crew —	160
Passengers —	20
Shuttlecraft —	4

Engines And Power Data:

Total Power Units Available —	38
Movement Point Ratio —	3/1
Warp Engine Type —	KWC-2
Number —	2
Power Units Available —	18
Stress Charts —	L.O
Maximum Safe Cruising Speed —	Warp 8
Emergency Speed —	Warp 9
Impulse Engine Type —	KIB-2
Power Units Available —	2

Weapons And Firing Data:

Beam Weapon Type —	KD-6
Number —	4
Firing Arcs —	1f/p, 1f/s, 1p/a, 1s/a
Firing Chart —	T
Maximum Power —	6
Damage Modifiers —	
+ 2	(1 - 18)

Shields Data:

Deflector Shield Type —	KSN
Shield Point Ratio —	2/3
Maximum Shield Power —	15

Combat Efficiency:

D/WDF —	65.2/20.4
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Notes:

Known Sphere Of Operation: Coreward and spinward areas
Data Reliability: D

Major Data Source: Operation Dixie

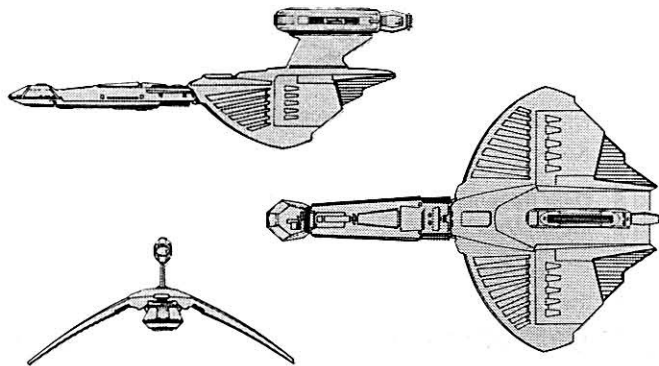
Although these vessels have never been reported along Federation borders, it is quite possible that they could appear there at anytime. The only contact with one of these vessels has been through Operation Dixie. What is known about their combat capabilities is reflected in the data chart. It should be noted that the K-24 is very maneuverable and has powerful shields. There is insufficient data to suggest that more than one model is in existence.

Intelligence reports show that these vessels are being produced at the Fonawl facility and, from there, being assigned to the coreward or spinward areas. A second facility may be located at Gerly, but this is unconfirmed.

The class is named from the Klingon *kom ka'des*, which translates to "forever the winner".



K-27 (Grim Reaper) CLASS VI ESCORT



Construction Data:

Model Numbers —	A	C
Ship Class —	VI	VI
Date Entering Service —	2/1604	2/1910
Number Constructed —	100	40

Hull Data:

Superstructure Points —	16	16
Damage Chart —	C	C
Size		
Length —	160 m	160 m
Width —	110 m	110 m
Height —	55 m	55 m
Weight —	61,100 mt	60,650 mt

Cargo

Cargo Units —	60 SCU	60 SCU
Cargo Capacity —	3,000 mt	3,000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	ZD-5	ZD-5
Transporters —		
standard 6-person	2	2
emergency 18-person	1	1
cargo	1	1
Cloaking Device Type —	None	KCB
Power Requirement —		22

Other Data:

Crew —	155	157
Passengers —	20	20
Shuttlecraft —	3	3

Engines And Power Data:

Total Power Units Available —	36	36
Movement Point Ratio —	3/1	3/1
Warp Engine Type —	KWC-2	KWC-2
Number —	1	1
Power Units Available —	18	18
Stress Charts —	L/N	L/N
Maximum Safe Cruising Speed —	Warp 6	Warp 6
Emergency Speed —	Warp 7	Warp 7
Impulse Engine Type —	KIE-3	KIE-3
Power Units Available —	18	18

Weapons And Firing Data:

Beam Weapon Type —	KD-8	KD-8
Number —	3	2
Firing Arcs —	1p, 1f, 1s	1p, 1s
Firing Chart —	U	U
Maximum Power —	7	7
Damage Modifiers —		
+3	(1 - 7)	(1 - 7)
+2	(8 - 15)	(8 - 15)
+1	(16 - 20)	(16 - 20)
Beam Weapon Type —	KD-12	KD-12
Number —	2	2
Firing Arcs —	A	A
Firing Chart —	H	H
Maximum Power —	9	9
Damage Modifiers —		
+3	(1 - 3)	(1 - 3)
+2	(4 - 8)	(4 - 8)
+1	(9 - 10)	(9 - 10)
Missile Weapon Type —	KP-2	KP-2
Number —	1	1
Firing Arcs —	F	F
Firing Chart —	H	H
Power To Arm —	1	1
Damage —	10	10

Shields Data:

Deflector Shield Type —	KSH	KSH
Shield Point Ratio —	2/3	2/3
Maximum Shield Power —	15	15

Combat Efficiency:

DWDF —	69.4/25.7	69.4/22.9
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Notes:

Known Sphere Of Operation: Romulan and coreward borders

Data Reliability: E

Major Data Source:

Operation Dixie, Romulan Sector Intelligence

The K-27, encountered by two of the ships from Operation Dixie, has never been reported by any other Star Fleet vessels. Sub-space radio transmissions, intercepted during Operation Dixie, and information gained from Project Grey Ghost have supplied all the information to date.

The bridge section and boom of the K-27 is similar to that of the K-23, and much of this forward design appears to have been borrowed completely from the early models of the more-recognizable escort. As will be noticed in the data, the forward-mounted beam weapons are in the same locations and firing arcs as are those of the early K-23s. The most noticeable feature of the K-27 is the single warp engine. Mounted on a pylon at the rear of the vessel, it is capable of being jettisoned, leaving the ship mostly intact. As of this printing, it is unknown whether the bridge section can be detached.

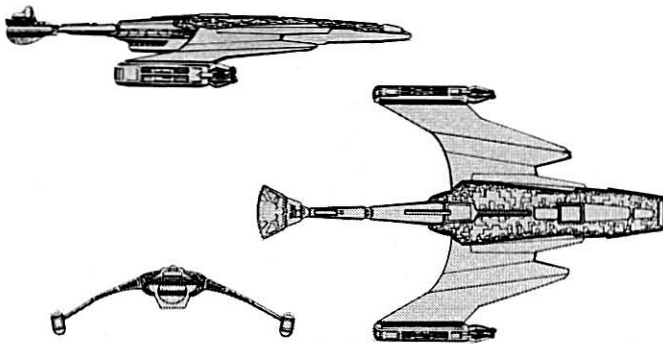
The introduction of a second model around Stardate 2/19 indicates possible unsatisfactory performance by the original model. The only change reported by Operation Dixie was the exchange of the forward-firing KD-8 disruptor for a KP-2 torpedo. Sub-space communications also indicate that some of these vessels are equipped with the KCB cloaking device. Please note that if the vessel is operating with the cloak activated, it will be considerably harder to detect, due to the single engine.

Reports indicate 110 of these vessels in active service. Reports received from Project Grey Ghost suggest that some of these vessels may be operating on the Romulan border coreward. The manufacturing facility for these ships has not been located; however, the shipyard at Gerly is believed to be producing these vessels.

The name derives from the Klingon *mortum hesta*, which translates to "the maker of the dead".



L-6 (Defender) CLASS VIII - IX FRIGATE



Construction Data:

Model Numbers —	B	G	I
Ship Class —	VIII	VIII	IX
Date Entering Service —	1/9204 - 2/1006	2/0703	2/0911
Number Constructed —	84	110	103

Hull Data:

Superstructure Points —	20	20	20
Damage Chart —	B	B	B
Size			
Length —	200 m	200 m	200 m
Width —	120 m	120 m	120 m
Height —	30 m	30 m	42 m
Weight —	100,700 mt	101,600 mt	123,000 mt

Cargo			
Cargo Units —	140 SCU	140 SCU	140 SCU
Cargo Capacity —	7,000 mt	7,000 mt	7,000 mt
Landing Capability —	None	None	None

Equipment Data:

Control Computer Type —	ZD-5	ZD-5	ZD-5
Transporters —			
standard 6-person	4	4	4
combat 22-person	3	3	3
emergency 18-person	2	2	2
cargo	2	2	2

Other Data:

Crew —	300	310	335
Troops —	300	300	320
Shuttlecraft —	2	2	6

Engines And Power Data:

Total Power Units Available —	38	38	34
Movement Point Ratio —	4/1	4/1	3/1
Warp Engine Type —	KWD-1	KWD-1	KWE-1
Number —	2	2	2
Power Units Available —	18	18	11
Stress Charts —	LN	LN	IL
Maximum Safe Cruising Speed —	Warp 6	Warp 6	Warp 6
Emergency Speed —	Warp 8	Warp 8	Warp 8
Impulse Engine Type —	KIB-2	KIB-2	KIE-2
Power Units Available —	2	2	12

Weapons And Firing Data:

Beam Weapon Type —	KD-6	KD-6	KD-6
Number —	2	4	8
Firing Arcs —	2f	4F	1f/p, 4f, 1f/s, 2a
Firing Chart —	T	T	T
Maximum Power —	6	6	6
Damage Modifiers —			
+ 2	(1 - 18)	(1 - 18)	(1 - 18)
Beam Weapon Type —	KD-4	KD-7	
Number —	4	4	
Firing Arcs —	1f/p, 1f/s, 1f/p, 1f/s	2f, 2a	
Firing Chart —	J	L	
Maximum Power —	4	7	
Damage Modifiers —			
+ 2		(1 - 6)	
+ 1	(1 - 10)	(7 - 12)	

Shields Data:

Deflector Shield Type —	KSE	KSJ	KSG
Shield Point Ratio —	1/1	2/3	1/2
Maximum Shield Power —	9	12	9

Combat Efficiency:

DWDF —	55.1/18.2	66.1/35.6	72.6/40.8
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Notes:

Known Sphere Of Operation: Spinward and Coreward borders; Federation border

Data Reliability: C

Major Data Source:

Klingon Sector Intelligence, Operation Dixie

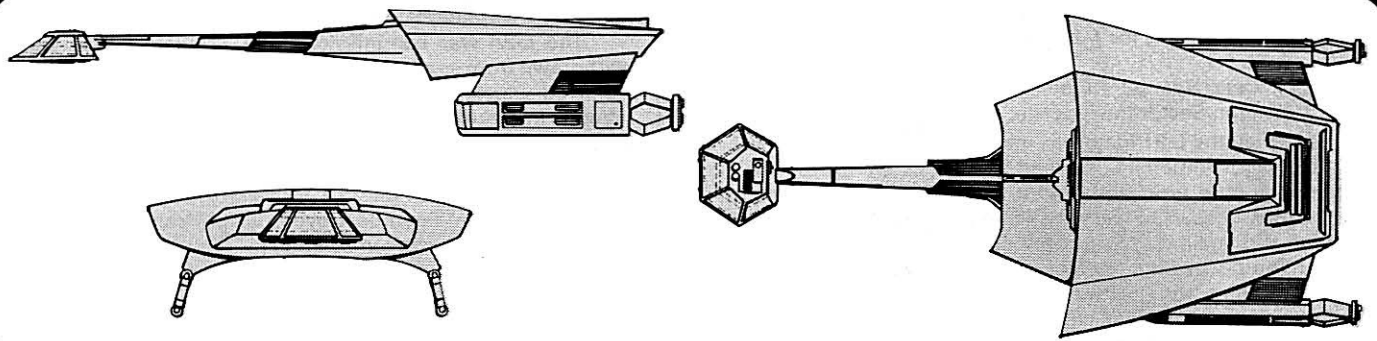
The first encounters with the L-6 frigate came during the Four Years War. Though few of them were met in actual battle, those that did were usually victorious; none was ever captured and only three were destroyed. On Stardate 1/9602, in an engagement that was to typify all subsequent encounters with these vessels in the war, two *Larson* class destroyers and a *Loknar* class frigate were bludgeoned by a single L-6. The destroyers *Eylau* and *Jutland* were patrolling the outer fringes of the Falgor system, left behind with the frigate *Proxima* when the main body of the Federation fleet withdrew to reform and ready itself for the inevitable Klingon thrust. The destroyers encountered the L-6 as it entered the area, readied themselves for combat, and dispatched a message to the *Proxima* requesting assistance. The *Jutland* called for the Klingon vessel to surrender as it approached. The L-6 responded by firing on the *Eylau*, damaging its impulse drive system. The *Jutland* closed to extreme range and opened fire, but the damage it inflicted was negligible. While the Klingon ship was concentrating on the incoming *Jutland*, the *Eylau* managed to damage a warp engine, causing the L-6 to turn on the *Eylau* with a withering barrage, destroying the *Eylau*'s warp drive controls and causing it to go dead in space. Once again, the *Jutland* fired to minimal effect, and the L-6 renewed its fire on the *Jutland*, which was no match for the Klingon frigate either in terms of firepower or range. The *Jutland* received one damaging blow after another, all from extreme range for its weapons. When the L-6 eventually closed for the kill, it was frustrated by the arrival of the *Proxima*. Approaching the Klingon from the rear, the *Proxima* closed rapidly and delivered a devastating blow to the engineering section, only to be surprised by the Klingon's aft-firing disruptors, which delivered a volley into the bridge and forced it to withdraw. Luckily for the Federation vessels, the moderately-damaged L-6 decided to withdraw, leaving the *Eylau* damaged beyond repair, the *Jutland* severely damaged, and the *Proxima* lightly damaged.

The L-6A went through an interesting change around Stardate 2.09, when the warp engines were changed from the KWD-1 to the KWE-1, and the impulse system was upgraded to the more powerful KIE-2. The warp engines delivered less power than the earlier designs but were more efficient. The impulse system increased its power output over the earlier system by 600%. The overall output of power decreased, however the maneuverability increased. Further changes included the addition of more troops and shuttlecraft as well as improved weaponry and shields. This modification did not alter the basic weakness in the L-6 design, its amidships warp engines.

Of the approximately 300 L-6s built, about 230 remain in active service and about 50 have been destroyed; the disposition of the remainder is unknown. Operation Dixie reports indicate that the L-6 is produced at the Kodal facility.

The class name is translated from the Klingon *t'h'lar*.

L-9 (Saber) CLASS X FRIGATE



Construction Data:

Model Numbers—	A	B	E	F	G
Ship Class—	X	X	X	X	X
Date Entering Service—	2/1507-2/1510	2/1701	2/2003	2/2102	2/2106
Number Constructed—	32	84	25	25	20

Hull Data:

Superstructure Points—	25	25	27	27	28
Damage Chart—	C	C	C	C	C
Size					
Length—	222 m	222 m	224 m	224 m	230 m
Width—	106 m	106 m	106 m	106 m	106 m
Height—	42 m	42 m	50 m	50 m	50 m
Weight—	146,500 mt	147,350 mt	150,500 mt	151,000 mt	152,100 mt

Cargo

Cargo Units—	180 SCU	180 SCU	160 SCU	160 SCU	60 SCU
Cargo Capacity—	9,000 mt	9,000 mt	8,000 mt	8,000 mt	3,000 mt
Landing Capability—	None	None	None	None	None

Equipment Data:

Control Computer Type—	ZD-7	ZD-7	ZD-7	ZD-7	ZD-7
Transporters—					
standard 6-person	3	3	3	3	3
combat 22-person	6	6	6	6	4
emergency 18-person	2	2	2	2	2
cargo	2	2	2	2	2

Other Data:

Crew—	420	420	432	435	450
Passengers—	300	300	340	340	240
Shuttlecraft—	6	6	5	5	5

Engines And Power Data:

Total Power Units Available—	42	42	48	52	52
Movement Point Ratio—	4/1	4/1	4/1	4/1	4/1
Warp Engine Type—	KWE-2	KWE-2	KWE-2	KWE-3	KWE-3
Number—	2	2	2	2	2
Power Units Available—	18	18	18	20	20
Stress Charts—	J/M	J/M	J/M	J/M	J/M
Maximum Safe Cruising Speed—	Warp 7	Warp 7	Warp 7	Warp 7	Warp 7
Emergency Speed—	Warp 8	Warp 8	Warp 8	Warp 8	Warp 8
Impulse Engine Type—	KIE-1	KIE-1	KIE-2	KIE-2	KIE-2
Power Units Available—	6	6	12	12	12

Weapons And Firing Data:

Beam Weapon Type—	KD-8	KD-8	KD-8	KD-8	KD-8
Number—	6	6	6	8	8
Firing Arcs—	1f/p, 2f, 1f/s, 2a	1f/p, 2f, 1f/s, 2a	1f/p, 2f, 1f/s, 2a	2f/p, 2f, 2f/s, 2a	2f/p, 2f, 2f/s, 2a
Firing Chart—	U	U	U	U	U
Maximum Power—	7	7	7	7	7
Damage Modifiers—					
+3	(1 - 7)	(1 - 7)	(1 - 7)	(1 - 7)	(1 - 7)
+2	(8 - 15)	(8 - 15)	(8 - 15)	(8 - 15)	(8 - 15)
+1	(16 - 20)	(16 - 20)	(16 - 20)	(16 - 20)	(16 - 20)
Beam Weapon Type—	KD-10	KD-13	KD-13		
Number—	4	4	2		
Firing Arcs—	1p, 2f, 1s	1f/p, 2f, 1f/s	1f/p, 1f/s		
Firing Chart—	C	X	X		
Maximum Power—	3	5	5		
Damage Modifiers—					
+3		(1 - 7)	(1 - 7)		
+2		(8 - 15)	(8 - 15)		
+1	(1 - 6)	(16 - 22)	(16 - 22)		
Missile Weapon Type—					RPL-1
Number—					1
Firing Arcs—					F
Firing Chart—					E
Power To Arm—					10
Damage—					See chart
Missile Weapon Type—			KP-6	KP-6	KP-6
Number—			2	2	1
Firing Arcs—			1f, 1a	1f, 1a	A
Firing Chart—			R	R	R
Power To Arm—			2	2	2
Damage—			20	20	20

Shields Data:

Deflector Shield Type—	KSP	KSP	KSP	KSP	KSP
Shield Point Ratio—	1/3	1/3	1/3	1/3	1/3
Maximum Shield Power—	15	15	15	15	15

Combat Efficiency:

D/WDF—	101.8/39.4	101.8/59.4	110.6/59.8	113.6/60.6	115.0/58.6
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Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: A for L-9A; B for L-9B; D for L-9E, L-9F; E for L-9G

Major Data Source: Model A in Star Fleet possession; Klingon Sector Intelligence; Operation Dixie

When the L-9 frigate was introduced on Stardate 2/1507, the Klingon Imperial Command boasted that it was the finest warship ever produced, and it has indeed become one of the most respected warships in known space, proving itself time and again to be a worthy opponent.

The L-9 has the angular design of the earlier K-23 class escorts. Its command pod, like all others, can be jettisoned in emergencies and is capable of life support, limited maneuver, and even weapons fire for up to one year on its own. Engineering, located in the central aft section of the ship, has a secondary bridge used when the main bridge has suffered damage during combat or when the command pod has been separated. Located in the lower decks of the main hull are hypothermia capsules that can be converted into temporary quarters for short missions. The shuttlebay is located forward of the engineering section, the shuttlecraft entering from the underside of the main hull. A total of six, and in earlier models eight, disruptors are mounted in the command pod and on the main hull near the where the boom attaches. A plasma weapon or forward-firing torpedoes are mounted in the lower portion of the main hull, and aft-firing weaponry (including two disruptors) is mounted in the lower rear of the main hull.

Sector Intelligence and Operation Dixie have revealed that L-9s are being produced at the facilities of Taamar, Fonawl, and Gnuu Re'. The latest estimates on production rate are 11 L-9s per year.

The class is named for the *sivista*, a dress sword worn by senior Klingon officers; the exact translation is "fast-sword".

The L-9A, commissioned on Stardate 2/1507, uses the KWE-2 warp drive system, which gives cruising speeds of Warp 7 and in emergency speeds of Warp 8. Mounting four KD-8 and four KF-10 disruptors firing into the forward arc, the L-9A could deliver a devastating blow at close range; the KD-10 has an offensive range of only 60,000 km, however, and this forced the vessel to close with enemies to deliver its full punch, a drawback that made the L-9A an unpopular vessel. The new KSP deflector shield, using a trinary transformer to deliver maximum shield strength at one-third the

power cost, coupled with a reinforced superstructure, made the L-9A a formidable opponent.

The L-9A was commissioned on Stardate 2/1507 and withdrawn from service on Stardate 2/1710, one of the shortest-lived warship models in any navy. Just eight months after its introduction, the L-9A was found to be ineffective in delivering long-range offensive strikes, but, until the facilities were retooled to replace the disruptors with the KD-13, production continued. Of the 32 L-9As built, 18 were converted to L-9Bs, 12 have been destroyed, 1 has been captured by Star Fleet, and 1 has been scrapped.

Although the L-9B is not the newest model, it is the most common. The only change this model incorporates is in the weapons system. The KD-10 disruptors were replaced by the KD-13, increasing the offensive range 350% and allowing the L-9 to deal with opposing capital ships at long range.

Of the 84 L-9Bs built, 66 remain in active service, 14 have been destroyed, 1 has been captured by the Romulans, 2 are listed as missing, and 1 is in the service of a ranking family of the Empire.

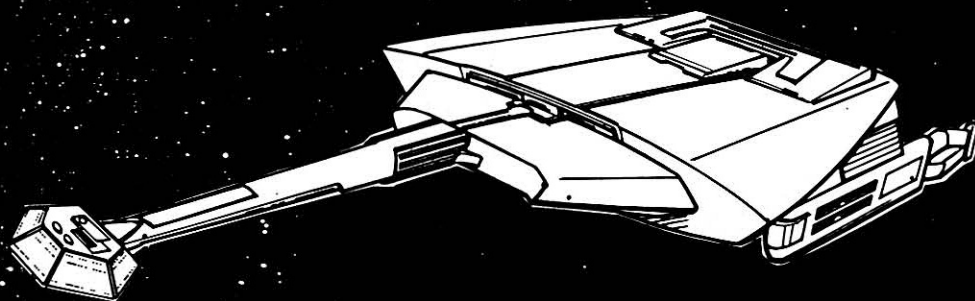
In the L-9C, an uprated impulse drive system was added to increase the total power output, but the warp envelope proved unstable, and it was not until the L-9E, mounting the KIE-2, that stability was achieved. The addition of the photon torpedo bays in the fore and aft positions made this model a feared opponent even though two disruptors were dropped from the weapon complement, best approached from the flank even though two of the forward firing disruptors were removed. The E also has a strengthened superstructure.

Of the approximately 25 L-9Es built, reports indicate that two have been destroyed. The disposition of the others is uncertain.

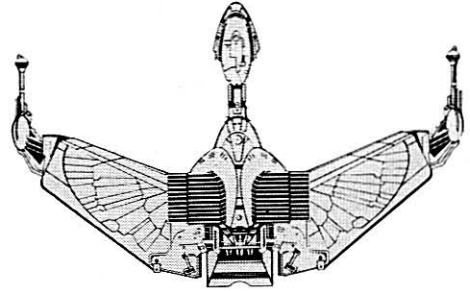
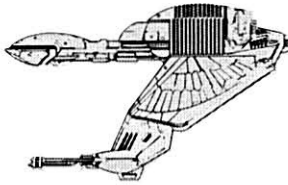
The L-9F mounts the more-powerful KWE-3 warp engines. Furthermore, the KD-13 disruptors have been changed to the KD-8, which does not have the extended range of the KD-13 but delivers a more powerful blow.

Of the approximately 25 L-9Fs built, all are believed to be in active service.

The L-9G is believed to have been responsible for the destruction of the ships of Operation Dixie, but reports confirming the existence of this model are not forthcoming. The model is believed to carry fewer troops than the other models, a reduction thought necessary to house the RPL-1 plasma weapon reportedly mounted in the lower main hull. These vessels are assumed to be operating along the Empire's coreward borders.



L-42 (Great Bird) CLASS IX - X FRIGATE



Construction Data:

Model Numbers —	A	B
Ship Class —	IX	X
Date Entering Service —	2/2101	2,2106
Number Constructed —	12	8

Hull Data:

Superstructure Points —	22	26
Damage Chart —	C	C
Size		
Length —	164 m	164 m
Width —	242 m	242 m
Height —	31 m	31 m
Weight —	120,000 mt	146,400 mt

Cargo

Cargo Units —	60 SCU	60 SCU
Cargo Capacity —	3,000 mt	3,000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	ZD-6	ZD-6
Transporters —		
standard 6-person	3	3
emergency 18-person	2	2
cargo	1	1
Cloaking Device Type —	KCC	KCD
Power Requirement —	32	48

Other Data:

Crew —	220	240
Passengers —	10	10
Shuttlecraft —	2	2

Engines And Power Data:

Total Power Units Available —	55	63
Movement Point Ratio —	3:1	4:1
Warp Engine Type —	KWF-1	KWE-3
Number —	2	2
Power Units Available —	16	20
Stress Charts —	H/J	H/J
Maximum Safe Cruising Speed —	Warp 8	Warp 7
Emergency Speed —	Warp 9	Warp 8
Impulse Engine Type —	KIF-2	KIF-2
Power Units Available —	23	23

Weapons And Firing Data:

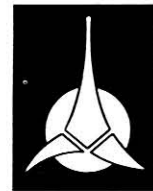
Beam Weapon Type —	KD-13	KD-13
Number —	6 in 2 banks of 3	6 in 2 banks of 3
Firing Arcs —	3f p, 3f/s	3f p, 3f/s
Firing Chart —	X	X
Maximum Power —	5	5
Damage Modifiers —		
+3	(1 - 7)	(1 - 7)
+2	(8 - 15)	(8 - 15)
+1	(16 - 22)	(16 - 22)
Missile Weapon Type —	KP-6	KP-5
Number —	1	4
Firing Arcs —	F	2f, 2a
Firing Chart —	R	O
Power To Arm —	2	1
Damage —	20	10

Shields Data:

Deflector Shield Type —	KSP	KSP
Shield Point Ratio —	1:3	1:3
Maximum Shield Power —	15	15

Combat Efficiency:

D WDF —	130.5 40.1	133.2 57.8
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Notes:

Known Sphere Of Operation: Triangle and Romulan borders

Data Reliability: D for D-42A; E for D-42B

Major Data Source:

Operation Dixie; Triangle Sector Intelligence

The L-42 frigate is the largest vessel type produced as a direct result of the last Klingon-Romulan technology exchange. Taking its hull design from the Romulan S-11 class scout, these frigates look very much like a giant K-22 class scout or D-32 class cruiser, sporting the same type of adjustable wings. When cruising, the wings are horizontal and when in combat, they are down; they have no up position for landing, as the vessel is much too large for atmospheric operations. The command pod can be jettisoned in case of emergency, with the entire boom section detaching from the main hull. A departure from standard design is the mounting of disruptors into banks of three, providing devastatingly-concentrated firepower but increasing the danger of major reductions from weapons hits. The efficient engines of the L-42A provide high maneuverability and give extra power to weapons and shields; these vessels are more maneuverable than most capital ships in both the Romulan Navy and Star Fleet.

The L-42B is reported to be more powerful overall but not as maneuverable. It is said to mount two forward- and two aft-firing KP-6 torpedoes. The strength of the superstructure is also said to have been increased.

Of the approximately 20 L-42s believed to have been built, Operation Dixie reported one has been destroyed. The disposition of the remainder is not known. Operation Dixie further reports that the L-42s are currently being produced at the Mustaka shipyards at an approximate rate of six per year. It is highly unlikely that the Klingons will keep the rate at this level, but an increase in the number of facilities is likely and may be underway already. The reports from Operation Dixie indicate that the class is equipped with a cloaking device, but the reliability of such devices on vessels this size is questionable.

The class name is a direct translation of the Klingon *z'gavasta*.

K-3 (Kalath) CLASS II GUNBOAT

Construction Data:

Model Numbers —	A	B
Ship Class —	II	II
Date Entering Service —	18909-2:1106	1:9212
Number Constructed —	466	1,336

Hull Data:

Superstructure Points —	3	3
Damage Chart —	C	C
Size —		
Length —	53 m	53 m
Width —	23 m	23 m
Height —	9 m	9 m
Weight —	8,300 mt	8,500 mt
Cargo —		
Cargo Units —	2 SCU	2 SCU
Cargo Capacity —	100 mt	100 mt
Landing Capability —	Yes	Yes

Equipment Data:

Control Computer Type —	ZD-2	ZD-2
Transporters —		
standard 6-person	1	1

Other Data:

Crew —	10	10
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Engines And Power Data:

Total Power Units Available —	12	15
Movement Point Ratio —	1/1	1/1
Warp Engine Type —	KWA-2	KWB-2
Number —	1	1
Power Units Available —	10	12
Stress Charts —	PQ	OP
Maximum Safe Cruising Speed —	Warp 6	Warp 6
Emergency Speed —	Warp 7	Warp 7
Impulse Engine Type —	KIA-2	KIB-1
Power Units Available —	2	3

Weapons And Firing Data:

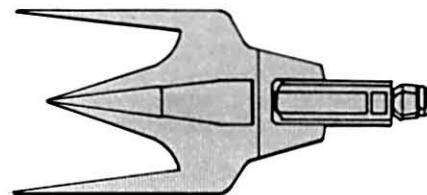
Beam Weapon Type —	KD-2	KD-2
Number —	2	2
Firing Arcs —	F	F
Firing Chart —	G	G
Maximum Power —	4	4
Damage Modifiers —		
+1	(1 - 10)	(1 - 10)

Shields Data:

Deflector Shield Type —	KSB	KSC
Shield Point Ratio —	1:1	1:1
Maximum Shield Power —	10	11

Combat Efficiency:

DWDF —	35.8/2.8	40.8/2.8
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Notes:

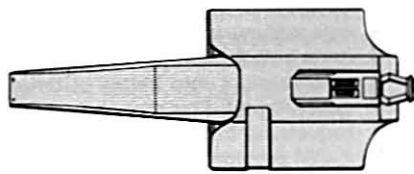
Known Sphere Of Operation: Empire Interior

Data Reliability: A

Major Data Source: Vessel in Star Fleet possession

Of the 1802 K-3s built, 997 remain in active service, 222 are in reserve fleets, 18 are used as training vessels, 315 have been destroyed, 31 have been captured (14 by the Romulans, 9 by Star Fleet, 4 by private interests in the Triangle, and 4 by Orions), 27 are listed as missing, 123 were traded to the Romulans, 6 have been traded and 38 sold to private interests in the Triangle, 14 have been sold to Orions, and 11 have been sold to prominent families within the Empire. The K-3, formerly produced at Taamar, Gnuu Re', and Z'hai, is no longer in production.

The class is named for a small, nocturnal predator native to Veridor.



Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: A for K-5B; B for K-5C

Major Data Source: K-5B in Star Fleet possession; Klingon Sector Intelligence

Of the 765 K-5s built, 577 remain in active service, 8 are used as training vessels, 106 have been destroyed, 5 Bs have been captured by Star Fleet, 29 are listed as missing, 6 have been scrapped, 12 traded to elements in the Triangle, and 22 are in the service of prominent and ranking families within the Empire. K-5s are being produced at Iosia, Fonawl, and Z'hai at a rate of 40 per year.

The class name is a translation of the Klingon *v's'talo*.



K-5 (Watcher) CLASS II - III GUNBOAT

Construction Data:

Model Numbers —	B	C
Ship Class —	II	III
Date Entering Service —	2:0711-2:1803	2:1404
Number Constructed —	403	652

Hull Data:

Superstructure Points —	3	7
Damage Chart —	C	C
Size —		
Length —	94 m	96 m
Width —	38 m	38 m
Height —	18 m	20 m
Weight —	12,950 mt	23,300 mt
Cargo —		
Cargo Units —	15 SCU	15 SCU
Cargo Capacity —	750 mt	750 mt
Landing Capability —	Yes	Yes

Equipment Data:

Control Computer Type —	ZD-2	ZD-2
Transporters —		
standard 6-person	1	1

Other Data:

Crew —	18	18
Passengers —	6	6

Engines And Power Data:

Total Power Units Available —	14	15
Movement Point Ratio —	1/1	2/1
Warp Engine Type —	KWB-2	KWB-2
Number —	1	1
Power Units Available —	12	12
Stress Charts —	OP	OP
Maximum Safe Cruising Speed —	Warp 6	Warp 5
Emergency Speed —	Warp 7	Warp 6
Impulse Engine Type —	KIA-2	KIB-1
Power Units Available —	2	3

Weapons And Firing Data:

Beam Weapon Type —	KD-3	KD-12
Number —	2	2
Firing Arcs —	F	11 s. 11 p.
Firing Chart —	I	H
Maximum Power —	5	9
Damage Modifiers —		
+3		(1 - 3)
+2		(4 - 8)
+1	(1 - 12)	(9 - 10)

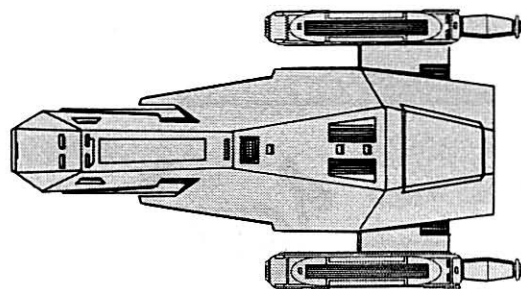
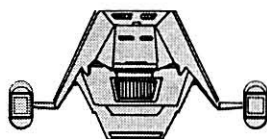
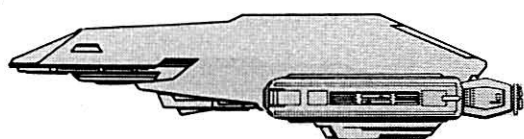
Shields Data:

Deflector Shield Type —	KSE	KSD
Shield Point Ratio —	1:1	1:2
Maximum Shield Power —	12	12

Combat Efficiency:

DWDF —	41.3/5.4	48.7/4
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K-4 (Enforcer) CLASS II GUNBOAT



Construction Data:

Model Numbers —	A	B
Ship Class —	II	II
Date Entering Service —	2/1103	2/1308
Number Constructed —	461	480

Hull Data:

Superstructure Points —	3	4
Damage Chart —	C	C
Size —		
Length —	56 m	56 m
Width —	28 m	28 m
Height —	14 m	14 m
Weight —	9,688 mt	11,008 mt

Cargo

Cargo Units —	4 SCU	4 SCU
Cargo Capacity —	200 mt	200 mt
Landing Capability —	Yes	Yes

Equipment Data:

Control Computer Type —	ZD-2	ZD-2
Transporters —		
standard 6-person	1	1

Other Data:

Crew —	12	12
Passengers —	6	6

Engines And Power Data:

Total Power Units Available —	12	12
Movement Point Ratio —	1/2	1/2
Warp Engine Type —	KWA-1	KWA-1
Number —	2	2
Power Units Available —	5	5
Stress Charts —	O.P.	O.P.
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 8	Warp 8
Impulse Engine Type —	KIA-2	KIA-2
Power Units Available —	2	2

Weapons And Firing Data:

Beam Weapon Type —	KD-2	KD-3
Number —	3	2
Firing Arcs —	2 p.f.s, 1 a.p/s	2 p.f.s
Firing Chart —	G	I
Maximum Power —	4	5
Damage Modifiers —		
+1	(1 - 10)	(1 - 12)
Beam Weapon Type —		KD-2
Number —		1
Firing Arcs —		a.p/s
Firing Chart —		G
Maximum Power —		4
Damage Modifiers —		
+1		(1 - 10)

Shields Data:

Deflector Shield Type —	KSE	KSE
Shield Point Ratio —	1/1	1/1
Maximum Shield Power —	12	12

Combat Efficiency:

D.W.D.F. —	55.3/4.2	55.3/6.8
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Notes:

Known Sphere Of Operation: Empire-wide use.

Data Reliability: B

Major Data Source: Triangle Sector Intelligence, Klingon Sector Intelligence

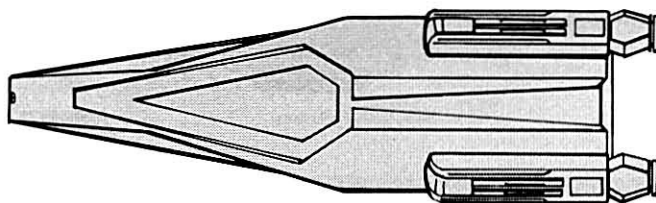
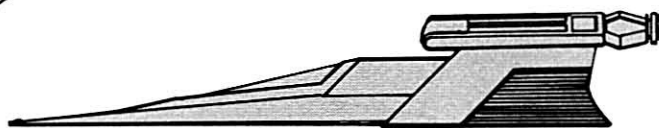
The K-4 gunboat/corvette, one of the most maneuverable vessels in known space, is designed to perform two different missions: in-system patrol duties or outpost/border patrol duties when acting as a gunboat, and rapid attack in mass assaults when acting as a corvette. When operating in its gunboat role, the K-4 carries a squad of six marines who are beamed aboard vessels that come under inspection, where they maintain order while the ship is being searched.

The vessel's usefulness as a corvette is exemplified by a search- and-destroy mission led by Admiral zantai Kaneida. On Stardate 2/1811, a small group of Klingon warships, including 25 K-4s, entered the Triangle to destroy or capture any Romulan forces they might encounter. This force enjoyed great success by using variations on a tactical plan, created by the Admiral himself. The plan called for the destroyers to meet and pin the enemy while the cruisers could maneuver into firing positions. When the cruisers began firing, the K-4s would rush in, concentrating their fire on single targets, then zoom away, only to come back again after another target. Whenever a target ship was assaulted by the K-4s, it was under such intense fire from a capital ship that it could not afford to redirect its fire into so many smaller targets. This tactic proved so successful that, although the mission lasted until Stardate 2/2009, only one cruiser, two destroyers, and seven K-4s were lost. Because of this, similar groups have been formed and can be seen operating along Federation borders and within the Triangle.

Of the 941 K-4s built, 331 As and 392 Bs remain in active service, 6 of each type are used as training vessels, 106 As and 63 Bs have been destroyed, 8 As and 3 Bs have been captured by the Romulans, 4 As and 5 Bs have been captured by Star Fleet, and 1 A and 2 Bs have been captured by the Orions, 3 As and 7 Bs are listed as missing, and two each have been sold to ranking families within the Empire. The K-4 is manufactured at Iosia, Gnuu Re', Fonawl, and H'rez. The estimated rate of production is 50 per year.

The class is named from the translation of the Klingon *kl'xenova*.

K-6 (Administrator) CLASS II - IV GUNBOAT



Construction Data:

Model Numbers —	A	C
Ship Class —	II	IV
Date Entering Service —	2/1102-2/1901	2/1306
Number Constructed —	62	367

Hull Data:

Superstructure Points —	3	6
Damage Chart —	C	C
Size		
Length —	54 m	55 m
Width —	23 m	23 m
Height —	10 m	10 m
Weight —	14,600 mt	26,900 mt

Cargo

Cargo Units —	16 SCU	13 SCU
Cargo Capacity —	800 mt	650 mt
Landing Capability —	Yes	Yes

Equipment Data:

Control Computer Type —	ZD-4	ZD-4
Transporters —		
standard 6-person	1	1

Other Data:

Crew —	8	9
Passengers —	4	4

Engines And Power Data:

Total Power Units Available —	22	20
Movement Point Ratio —	2/1	1/1
Warp Engine Type —	KWA-2	KWB-1
Number —	2	2
Power Units Available —	10	9
Stress Charts —	Q.R	O.Q
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 8	Warp 8
Impulse Engine Type —	KIC-1	KIC-1
Power Units Available —	2	2

Weapons And Firing Data:

Beam Weapon Type —	KD-7	KD-7
Number —	1	2 in 1 bank
Firing Arcs —	F	p.f.s
Firing Chart —	L	L
Maximum Power —	7	7
Damage Modifiers —		
+2	(1 - 6)	(1 - 6)
+1	(7 - 12)	(7 - 12)

Beam Weapon Type —	KD-4	
Number —	1	
Firing Arcs —	A	
Firing Chart —	J	
Maximum Power —	4	
Damage Modifiers —		
+1	(1 - 10)	

Shields Data:

Deflector Shield Type —	KSM	KSJ
Shield Point Ratio —	1/1	2/3
Maximum Shield Power —	15	15

Combat Efficiency:

D.W.D.F. —	41.8/3.8	71.3/9.6
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Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: A

Major Data Source: K-6A in Star Fleet possession; Orion Sector Intelligence, Klingon Sector Intelligence

K-6 gunboats are found in all areas of Klingon space, especially those occupied by servitor races, where it patrols star systems in groups of five looking for black-marketeers and others involved in illegal acts. It is not intended to deal with capital ships. The K-6 is particularly well-known in the Triangle, where many operate, either under the Klingon banner or some other; recent information indicates that six of the Romulan version, the P-12, operate almost exclusively there.

The K-6A, introduced on Stardate 2/1102 at both Fonawl and Taamar, mounted the KWA-2 warp drive system. This was found to be inadequate for maneuvering the vessel, and the K-6B was designed with improved engines. Before this model was put into production, however, it was replaced with the K-6C, which had improved weapons and shield generators.

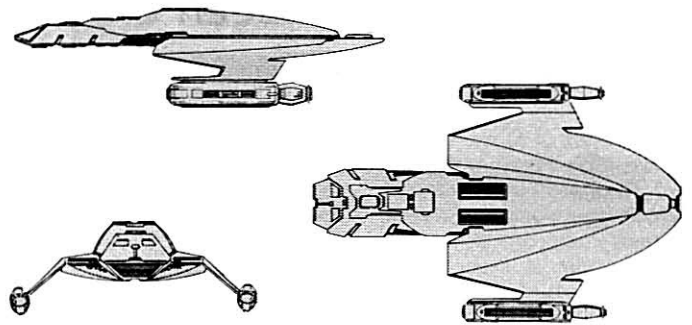
The K-6C is more maneuverable, has better than double the firepower, has shields that are 50% more efficient, and has a superstructure capable of taking twice as much damage. Refitting all existing vessels to this configuration was begun immediately, and was completed on Stardate 2/1901.

Of the 1043 K-6s built, 688 remain in active service, 8 are used as training vessels, 92 have been destroyed, 16 have been captured (8 by private interests in the Triangle, 4 by the Romulans, 2 by Orions and 2 by Star Fleet), 11 are listed as missing, 3 have been scrapped, 220 traded to the Romulans (all engines, weapons, and shield systems were removed), and 5 are in the service of a ranking family of the Empire. The K-6 is now being produced at the Taamar, Fonawl, and H'rez facilities at a rate of 60 per year.

The class name is translated from the Klingon *lar'hal*.

K-14 (Pathmaker) CLASS IV SCOUT

Construction Data:			
Model Numbers —	A	C	G
Ship Class —	IV	IV	IV
Date Entering Service —	2:0209 – 1103	2:0902	2:1406
Number Constructed —	105	145	100
Hull Data:			
Superstructure Points —	6	7	8
Damage Chart —	B	B	B
Size —			
Length —	145 m	145 m	145 m
Width —	100 m	100 m	100 m
Height —	35 m	35 m	35 m
Weight —	27,050 mt	30,000 mt	32,300 mt
Cargo —			
Cargo Units —	10 SCU	10 SCU	12 SCU
Cargo Capacity —	500 mt	500 mt	600 mt
Landing Capability —	Yes	Yes	Yes
Equipment Data:			
Control Computer Type —	ZD-4	ZD-4	ZD-4
Transporters —			
standard 6-person	1	1	1
Other Data:			
Crew —	16	16	17
Shuttlecraft —	1	1	1
Engines And Power Data:			
Total Power Units Available —	20	27	27
Movement Point Ratio —	2:1	2:1	2:1
Warp Engine Type —	KWB-1	KWB-2	KWB-2
Number —	2	2	2
Power Units Available —	9	12	12
Stress Charts —	O/Q	P/Q	P/Q
Maximum Safe Cruising Speed —	Warp 6	Warp 8	Warp 8
Emergency Speed —	Warp 7	Warp 9	Warp 9
Impulse Engine Type —	KIC-1	KIB-1	KIB-1
Power Units Available —	2	3	3
Weapons And Firing Data:			
Beam Weapon Type —	KD-4	KD-7	KD-7
Number —	3	3	3
Firing Arcs —	2f p.s., 1a	2f p.s., 1a	2f p.s., 1a
Firing Chart —	J	L	L
Maximum Power —	4	7	7
Damage Modifiers —			
+2		(1 – 6)	(1 – 6)
+1	(1 – 10)	(7 – 12)	(7 – 12)
Missile Weapon Type —			
Number —			1
Firing Arcs —			F
Firing Chart —			F
Power To Arm —			1
Damage —			6
Shields Data:			
Deflector Shield Type —	KSI	KSM	KSJ
Shield Point Ratio —	1:1	1:1	2:3
Maximum Shield Power —	14	15	14
Combat Efficiency:			
D/WDF —	42.6/6	54.3/7.6	63.9/9.1



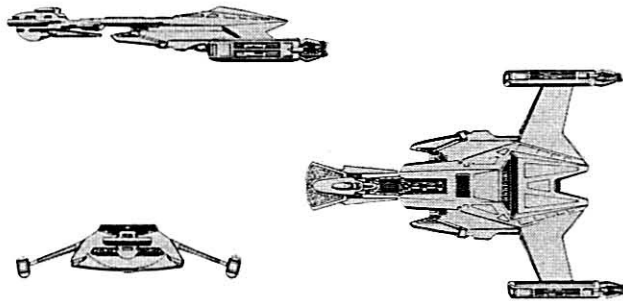
Notes:

Known Sphere Of Operation: Coreward and Spinward areas
Data Reliability: D

Major Data Source: Operation Dixie

Of the approximately 350 K-14s built at Z'hai, intelligence reports indicate that about 225 of them remain in active service, and approximately 100 have been destroyed. The remaining dispositions are uncertain at the time of this printing.

The class name is a rough translation of the Klingon *tas'esta*.



Notes:

Known Sphere Of Operation: Triangle and Spinward areas
Data Reliability: A

Major Data Source: Vessels in Star Fleet possession

Of the 132 K-17s built at Taamar, 46 As and 21 Ds have been destroyed, 5 As and 2 Ds have been captured by Star Fleet, 3 As have been captured by the Romulans, 6 As and 3 Ds are listed as missing, 14 As and 16 Ds have been traded or sold to private interests in the Triangle, and 10 As and 2 Ds are in the service of ranking families in the Empire.

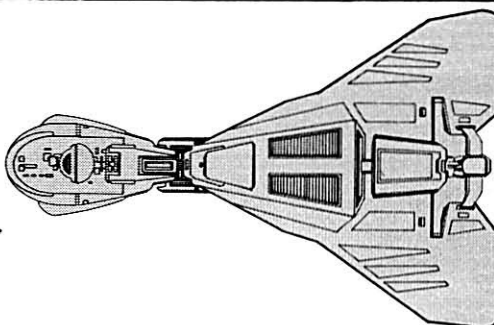
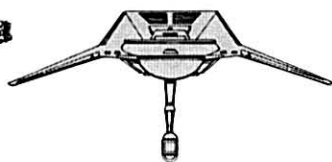
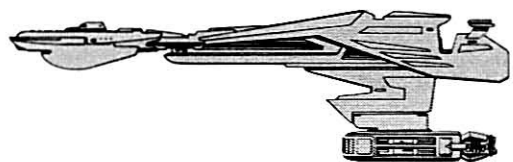
The class name is a translation of the Klingon *z'mortama*.



K-17 (Death Stalker) CLASS III SCOUT

Construction Data:		
Model Numbers —	A	D
Date Entering Service —	1:8808-2:0003	1:9612 – 2:10021
Number Constructed —	84	44
Hull Data:		
Superstructure Points —	5	5
Damage Chart —	C	C
Size —		
Length —	130 m	130 m
Width —	90 m	90 m
Height —	20 m	21 m
Weight —	17,200 mt	23,150 mt
Cargo —		
Cargo Units —	10 SCU	10 SCU
Cargo Capacity —	500 mt	500 mt
Landing Capability —	Yes	Yes
Equipment Data:		
Control Computer Type —	ZD-4	ZD-3
Transporters —		
standard 6-person	1	1
Other Data:		
Crew —	14	14
Engines And Power Data:		
Total Power Units Available —	23	21
Movement Point Ratio —	3:1	1:1
Warp Engine Type —	KWA-2	KWB-1
Number —	2	2
Power Units Available —	10	9
Stress Charts —	O/R	O/Q
Maximum Safe Cruising Speed —	Warp 6	Warp 6
Emergency Speed —	Warp 7	Warp 8
Impulse Engine Type —	KIA-3	KIA-3
Power Units Available —	3	3
Weapons And Firing Data:		
Beam Weapon Type —	KD-1	KD-4
Number —	3	3
Firing Arcs —	2f, 1a	2f, 1a
Firing Chart —	B	J
Maximum Power —	4	4
Shields Data:		
Deflector Shield Type —	KSB	KSC
Shield Point Ratio —	1:1	1:1
Maximum Shield Power —	8	11
Combat Efficiency:		
D/WDF —	29.1/2.1	49.6/6

K-15 (Unseen Creeper) CLASS IV - V SCOUT



Construction Data:

Model Numbers —	A	D	F
Ship Class —	IV	V	V
Date Entering Service —	2/0307-1202	2/1101	2/1505
Number Constructed —	91	238	120

Hull Data:

Superstructure Points —	7	8	10
Damage Chart —	C	C	C
Size —			
Length —	100 m	110 m	110 m
Width —	155 m	155 m	155 m
Height —	45 m	50 m	50 m
Weight —	39,100 mt	41,100 mt	46,300 mt

Cargo

Cargo Units —	20 SCU	30 SCU	30 SCU
Cargo Capacity —	1,000 mt	1,500 mt	1,500 mt
Landing Capability —	Yes	Yes	Yes

Equipment Data:

Control Computer Type —	ZD-3	ZD-4	ZD-4
Transporters —			
standard 6-person cargo	1	1	1
	1	1	1

Other Data:

Crew —	120	124	126
Passengers —	2	2	2

Engines And Power Data:

Total Power Units Available —	16	20	25
Movement Point Ratio —	2/1	2/1	2/1
Warp Engine Type —	KWC-1	KWC-2	KWC-3
Number —	1	1	1
Power Units Available —	14	18	22
Stress Charts —	K/N	L/N	L/M
Maximum Safe Cruising Speed —	Warp 7	Warp 7	Warp 7
Emergency Speed —	Warp 8	Warp 8	Warp 8
Impulse Engine Type —	KIC-1	KIC-1	KIB-1
Power Units Available —	2	2	3

Weapons And Firing Data:

Beam Weapon Type —	KD-3	KD-3	KD-7
Number —	4	4	4
Firing Arcs —	2f, 1a p, 1a's	2f, 1a p, 1a's	2f, 1a p, 1a's
Firing Chart —	I	I	L
Maximum Power —	5	5	7
Damage Modifiers —			
+2			(1 - 6)
+1	(1 - 12)	(1 - 12)	(7 - 12)

Missile Weapon Type —

Number —			KP-2
Firing Arcs —			F
Firing Chart —			H
Power To Arm —			1
Damage —			10

Shields Data:

Deflector Shield Type —	KSI	KSJ	KSJ
Shield Point Ratio —	1/1	2/3	2/3
Maximum Shield Power —	14	14	14

Combat Efficiency:

D WDF —	41.5/10.8	53.4/10.8	60.8/18.5
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Notes:

Known Sphere Of Operation: Empire-wide use, frequently operates in Spinward frontiers and the Triangle

Data Reliability: A for K-15A; C for K-15D, K-15E

Major Data Source: K-15A in Star Fleet possession; Klingon Sector Intelligence, Triangle Sector Intelligence

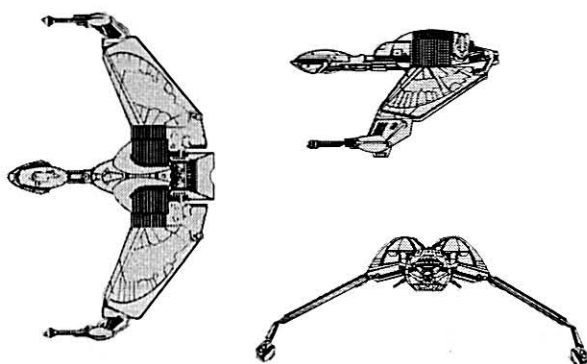
The K-15 is the most likely Klingon scout vessel to be encountered anywhere in known space. Only the K-15D and K-15F models are in service at present, but newer models could appear at any time, as the design is well accepted by both officers and crew.

Of the 391 K-15s built, 196 Ds and 92 Fs remain in active service, 1 each are used as training vessels, 21 As, 19 Ds, and 14 Fs have been destroyed, 2 Aseach have been captured by Star Fleet and the Romulans, 3 As, 14 Ds, and 9 Fs are listed as missing, 5 As and 2 Ds were traded to the Romulans, 2 Ds have been sold to private interests in the Triangle, 1 D has been sold to the Orions, and 3 Ds and 4 Fs have been sold to prominent families with the Empire. The K-15 is being produced at the Taamar and Gnuu Re' facilities. Combined annual production is 15 of each type.

The class name is a reference to the Klingon *l'rexa*, which translates to "slowly and unseen".



K-22 (Bird Of Prey) CLASS V SCOUT



Construction Data:

Model Numbers —	A	B
Date Entering Service —	2/1805	2/1906
Number Constructed —	8	72

Hull Data:

Superstructure Points —	10	10
Damage Chart —	C	C
Size		
Length —	88 m	88 m
Width —	130 m	130 m
Height —	16 m	16 m
Weight —	46,300 mt	47,000 mt

Cargo

Cargo Units —	5 SCU	5 SCU
Cargo Capacity —	250 mt	250 mt
Landing Capability —	Yes	Yes

Equipment Data:

Control Computer Type —	ZD-4	ZD-4
Transporters —		
standard 6-person	1	1
Cloaking Device Type —	KCB	KCB
Power Requirement —	22	22

Other Data:

Crew —	12	14
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Engines And Power Data:

Total Power Units Available —	25	25
Movement Point Ratio —	2/1	2/1
Warp Engine Type —	KWC-3	KWC-3
Number —	1	1
Power Units Available —	22	22
Stress Charts —	L/M	L/M
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 8	Warp 8
Impulse Engine Type —	KIB-1	KIB-1
Power Units Available —	3	3

Weapons And Firing Data:

Beam Weapon Type —	KD-8	KD-8
Number —	2	2
Firing Arcs —	1f.p., 1f.s	1f.p., 1f.s
Firing Chart —	U	U
Maximum Power —	7	7
Damage Modifiers —		
+3	(1 - 7)	(1 - 7)
+2	(8 - 15)	(8 - 15)
+1	(16 - 20)	(16 - 20)

Beam Weapon Type —

Number —	1	KD-12
Firing Arcs —	A	
Firing Chart —	H	
Maximum Power —	9	
Damage Modifiers —		
+3	(1 - 3)	
+2	(4 - 8)	
+1	(9 - 10)	

Missile Weapon Type —

Number —	KP-5	KP-5
Firing Arcs —	1f	F
Firing Chart —	Q	Q
Power To Arm —	1	1
Damage —	10	10

Shields Data:

Deflector Shield Type —	KSC	KSD
Shield Point Ratio —	1/1	1/2
Maximum Shield Power —	10	11

Combat Efficiency:

D WDF —	45.8/17.7	65.3/21.4
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Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: D for K-22A; A for K-22B

Major Data Source: K-22B in Star Fleet possession, Klingon Sector Intelligence

The infamous K-22 (*Bird Of Prey*) scout is the Klingon prong of the double threat posed to Star Fleet by vessels of this design, equipped with cloaking devices and operated by both the Klingon and Romulan navies. The wing mechanisms of these vessels are ingenious and practical, the most interesting feature of the design. When the vessel is cruising, the wings are extended horizontally, which distributes the stress evenly throughout the vessel. When in combat, the wings are down, which gives a broader field of fire and protects a weak area on the lower central hull. When performing atmospheric operations, the wings are up, which gives more lift when the "feather" plates located along the wings, (originally thought to be merely decorative), are individually adjusted to compensate for air turbulence.

The command pod of the K-22 is a blending of Klingon and Romulan designs, but it cannot be detached in an emergency, for the heart of the ship is located in the main hull, including the computer system and the life-support system. Also located within the aft hull of the ship are the warp engines, which cannot be jettisoned, as well as the transporter system and the exit ramp. The cloaking device that is used on this vessel is unreliable at best; it has been confirmed the device is capable of driving crewmembers mad, though Federation medical specialists do not fully understand the cause.

The most important fact concerning the construction of these vessels was that the Klingons already were producing approximately 80% of the internal components prior to receiving prototypes from the Romulans. On Stardate 2/1805, the Romulans delivered seven hulls and an undetermined number of cloaking devices, and, within 13 months, the Imperial Navy commissioned its first vessels.

The S-11 hulls were fitted out into the K-22A. As received from the Romulans, they had no mounting point for an aft-firing disruptor. Intelligence reports indicate that all seven of these vessels were completed, but that afterward no production-model vessels were constructed. The disposition of these seven ships is unknown.

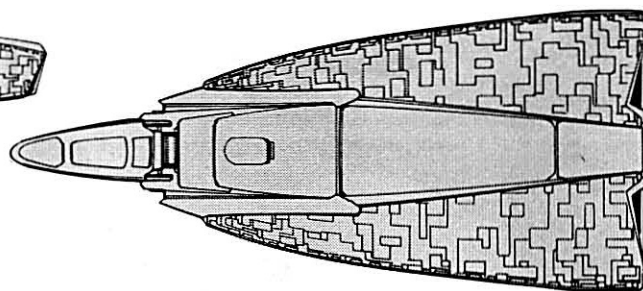
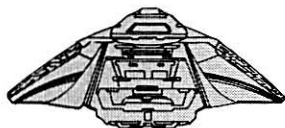
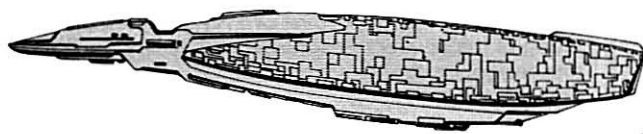
The first production model, the K-22B, was modified to accept the KD-12. A further modification was made to allow the KSD shielding system to be installed. These systems increase offensive capabilities by 25% and defensive capabilities by 45%. These vessels are very maneuverable in combat and have an impressive offensive capability. Although they are not really capable of fighting major warships, they are able to defend themselves long enough to engage their warp systems to escape, with the ability to travel at Warp 8 in emergencies.

The K-22B may be found in all areas of space, performing its missions of espionage and terrorism; they have been reported by Klingon, Triangle, Romulan, and Spinward Sector Intelligence as operating in those respective areas. The ability of the ship to penetrate outer defenses and travel freely about the Federation was seen recently, when one of them was captured by Adm. James T. Kirk. In an attempt to steal the plans of the secret Genesis Project, a K-22B penetrated Federation space undetected as far as the Mutara Nebula. Most of the information about this class, and the similar Romulan S-11 scout, was obtained from the computer banks of the captured vessel.

Of the 79 K-22Bs built, 1 has been captured by Star Fleet and the remaining 78 are believed to be in active service, their whereabouts unknown. The K-22 is being produced at the Taamar facility at an approximate rate of 20 per year.

The class name is a reference to the Romulan name for the S-11; the Klingon name *D'Gavama* is a direct translation of "bird of prey".

K-30 (Luckless) CLASS IV MONITOR



Construction Data:

Model Numbers —	A	E
Ship Class —	IV	IV
Date Entering Service —	1,9001 – 2,0202	1,9804 – 2,0901
Number Constructed —	172	72

Hull Data:

Superstructure Points —	8	10
Damage Chart —	C	C
Size		
Length —	106 m	106 m
Width —	46 m	46 m
Height —	20 m	20 m
Weight —	27,900 mt	25,200 mt

Cargo

Cargo Units —	20 SCU	20 SCU
Cargo Capacity —	1,000 mt	1,000 mt
Landing Capability —	Yes	Yes

Equipment Data:

Control Computer Type —	ZD-3	ZD-4
Transporters —		
standard 6-person	1	1

Other Data:

Crew —	30	30
Passengers —	10	10
Shuttlecraft —	1	1

Engines And Power Data:

Total Power Units Available —	20	26
Movement Point Ratio —	2/1	2/1
Warp Engine Type —	KSLA	KSLB
Number —	2	2
Power Units Available —	9	12
Stress Charts —	J.M	K.N
Impulse Engine Type —	KIC-1	KIC-1
Power Units Available —	2	2

Weapons And Firing Data:

Beam Weapon Type —	KD-2	KD-3
Number —	7	6
Firing Arcs —	2f p, 2f, 2f s, 1a	2f p, 2f, 2f s
Firing Chart —	G	I
Maximum Power —	4	5
Damage Modifiers —		
+1	(1 – 10)	(1 – 12)
Beam Weapon Type —		KD-2
Number —		1
Firing Arcs —		A
Firing Chart —		G
Maximum Power —		4
Damage Modifiers —		
+1		(1 – 10)

Shields Data:

Deflector Shield Type —	KSC	KSJ
Shield Point Ratio —	1/1	2/3
Maximum Shield Power —	11	14

Combat Efficiency:

D/WDF —	41.4/9.8	61.5/17.6
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Notes:

Known Sphere Of Operation: Orion space and the Triangle
Data Reliability: A

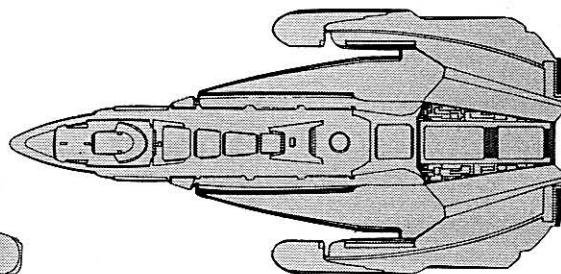
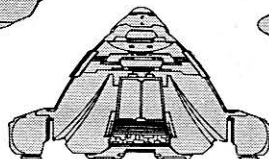
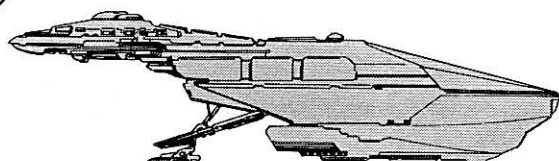
Major Data Source: K-30A and K-30E in Star Fleet possession

The K-30 was introduced into service to replace the obsolete K-12 monitor, which was unable to operate alone, due to the lack of sufficient maneuvering capability and weaponry. The Empire was expanding at a very rapid pace and needed modern, cost-efficient ships that could operate alone. On Stardate 1/9001, the first of the K-30s were commissioned into service from the Taamar shipyards.

Not long after the commissioning ceremonies, an incident occurred that was an omen for the K-30's future. A special carrier had been built to move the K-30s to their duty stations. While the first five monitors were being loaded onto one of these carriers, a collision occurred between two of them. Within one year, five of the 20 K-30s produced at Taamar had been destroyed, only one by hostile action. The class was building a reputation for being accident-prone. To add to the reputation, the K-30B and K-30C repeated failed tests of their new sub-light engines and were never put into production. The K-30D prototype, with the new sub-light engine and a new shield generator, suffered several mishaps, one of which damaged the ship so badly that a replacement had to be built. During the final stages of construction, the engine contractor had come up with an improved version of the original design and supplied it instead. The new prototype with the replacement engine, now the K-30E, was successfully tested, but, on Stardate 1/9804, the first five production models were destroyed in a mysterious explosion during loading operations. A prevalent Klingon nickname for the class refers to this series of events; oftentimes called K'nel ("spell"), the ships of this class are not liked by most Klingon captains and crews.

The production of the K-30 was halted on Stardate 2/0110 in favor of a newer design. As the K-30s were replaced, they were sold or traded. Of the 244 K-30s built at Taamar, 132 were destroyed, 11 have been captured by Star Fleet, 6 are listed as missing, 51 have been scrapped, 9 have been traded to the Orions and 8 to private interests in the Triangle, and 22 have been sold to private interests in the Triangle and 5 to the Orions.

K-32 (Strong Victor) CLASS IV MONITOR



Construction Data:

Model Numbers —	A	B
Ship Class —	IV	IV
Date Entering Service —	2/0105	2/0710
Number Constructed —	331	240

Hull Data:

Superstructure Points —	10	10
Damage Chart —	C	C
Size		
Length —	110 m	110 m
Width —	52 m	52 m
Height —	30 m	30 m
Weight —	35,700 mt	36,700 mt

Cargo

Cargo Units —	42 SCU	42 SCU
Cargo Capacity —	2,100 mt	2,100 mt
Landing Capability —	Yes	Yes

Equipment Data:

Control Computer Type —	ZD-4	ZD-4
Transporters —		
standard 6-person	1	1

Other Data:

Crew —	32	34
Passengers —	10	10
Shuttlecraft —	1	1

Engines And Power Data:

Total Power Units Available —	27	27
Movement Point Ratio —	2/1	2/1
Warp Engine Type —	KSLB	KSLB
Number —	2	2
Power Units Available —	12	12
Stress Charts —	K/N	K/N
Impulse Engine Type —	KIB-2	KIB-2
Power Units Available —	3	3

Weapons And Firing Data:

Beam Weapon Type —	KD-7	KD-7
Number —	4	4
Firing Arcs —	2f/p, 2f/s	2f/p, 2f/s
Firing Chart —	L	L
Maximum Power —	7	7
Damage Modifiers —		
+2	(1 - 6)	(1 - 6)
+1	(7 - 12)	(7 - 12)
Beam Weapon Type —	KD-2	KD-4
Number —	4	4
Firing Arcs —	2p/a, 2s/a	2p/a, 2s/a
Firing Chart —	G	J
Maximum Power —	4	4
Damage Modifiers —		
+1	(1 - 10)	(1 - 10)

Shields Data:

Deflector Shield Type —	KSJ	KSD
Shield Point Ratio —	2/3	1/2
Maximum Shield Power —	14	11

Combat Efficiency:

D/WDF —	62.3/20.8	67.3/23.2
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Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: B

Major Data Source: Klingon Sector Intelligence

After the Four Years War, the Klingons began to feel the need for more monitors not only to replace the many that had been destroyed, but also to patrol their substantial gain of territory. The K-32 was introduced to solve two problems: to increase the Klingon presence around their servitor territories and to replace the highly unpopular K-30. Ships of this class carry a squad of ten marines for security reasons and possible boarding actions.

After many failures, the KSLB was perfected and installed on the K-32A, allowing it to maneuver well while devoting sufficient power to the offensive systems. The weapons arrangement is highly effective, giving the ability to discharge six disruptors in either the forward or aft arcs.

Of the 571 K-32s built, 279 As and 199 Bs remain in active service, 2 each are used as training vessels, 33 As and 21 Bs have been destroyed, 2 As and 1 B have been captured by private interests in the Triangle, 2 As and 3 Bs are listed as missing, 7 As and 10 Bs have been sold or traded to private interests in the Triangle, and 6 As and 4 Bs are in the service of prominent and ranking families of the Empire. The K-32s are produced at Taamar and H'rez. The combined rate of production is 15 of each type per year.

The class name is a translation of the Klingon *v'al'kon*.



G-3 (Baka Re') CLASS VII-VIII CARGO FREIGHTER

Construction Data:

Model Numbers —	A	B
Ship Class —	VII	VIII
Date Entering Service —	2/0406	2/1510
Number Constructed —	292	181

Hull Data:

Superstructure Points —	9	10
Damage Chart —	B	B
Size		
Length —	240 m	240 m
Width —	140 m	140 m
Height —	60 m	60 m
Weight —	81,500 mt	113,100 mt

Cargo

Cargo Units —	3,600 SCU	3,800 SCU
Cargo Capacity —	180,000 mt	190,000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	ZD-5	ZD-5
Transporters —		
standard 6-person	1	1
cargo small	10	10
large	6	6

Other Data:

Crew —	30	32
Passengers —	10	10
Shuttlecraft —	6	6

Engines And Power Data:

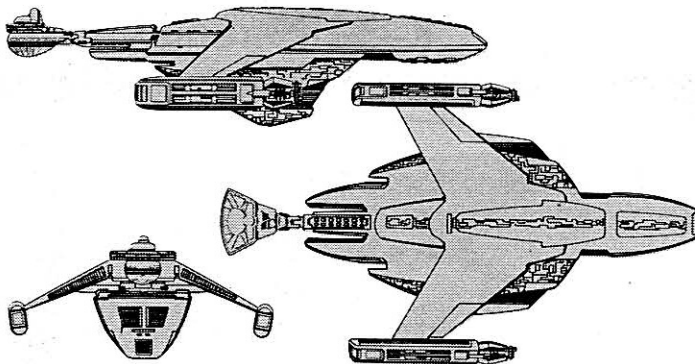
Total Power Units Available —	40	40
Movement Point Ratio —	4/1	4/1
Loaded	6/1	7/1
Warp Engine Type —	KWD-1	KWE-2
Number —	2	2
Power Units Available —	18	18
Stress Charts —	L/N	J/M
Maximum Safe Cruising Speed —	Warp 6	Warp 7
Loaded	Warp 4	Warp 5
Emergency Speed —	Warp 8	Warp 8
Loaded	Warp 5	Warp 6
Impulse Engine Type —	KIC-2	KIC-2
Power Units Available —	4	4

Shields Data:

Deflector Shield Type —	KSJ	KSN
Shield Point Ratio —	2/3	2/3
Maximum Shield Power —	13	14

Combat Efficiency:

D/WDF —	53.4/0	56.3/0
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Notes:

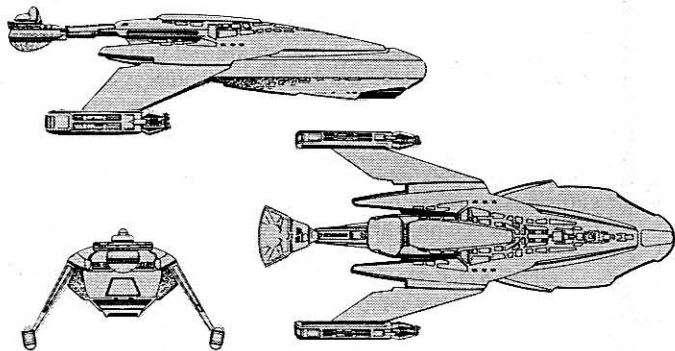
Known Sphere Of Operation: Empire-wide use; the Triangle and Orion space

Data Reliability: C

Major Data Source: Triangle Sector Intelligence, Orion Sector Intelligence

Of the 473 G-3 freighters built, 256 As and 167 Bs remain in active service, 28 As and 9 Bs have been destroyed, 3 As and 1 B are listed as missing, 1 of each has been scrapped, 2 As and 2 Bs have been traded to the Romulans, and 2 As and 1 B have been sold to the Orions. The G-3s are produced at Gnuu Re' and Mustaka, with a combined annual rate of 24.

The class name is the Klingon word for "pregnant".



Notes:

Known Sphere Of Operation:

Empire-wide use; the Triangle and Orion space

Data Reliability: B

Major Data Source:

Orion Sector Intelligence, Triangle Sector Intelligence

Of the 531 G-8s built, 308 remain in active service, 191 have been destroyed, 17 have been captured (6 by Star Fleet, 6 by Orions, and 5 by the Romulans), 8 are listed as missing, 5 have been scrapped, and 2 have been sold to private interests in the Triangle. The G-8s are being produced at Taamar, Fonawl, and Z'hai with a combined rate of 18 per year.

The class name is from the Klingon *plen zha*, translates to "trader's game".



G-8 (Traders Game) CLASS IV CARGO FREIGHTER

Construction Data:

Model Numbers —	A
Ship Class —	N
Date Entering Service —	1/9501
Number Constructed —	531

Hull Data:

Superstructure Points —	7
Damage Chart —	A
Size	
Length —	210 m
Width —	100 m
Height —	60 m
Weight —	35,200 mt

Cargo

Cargo Units —	2,300 SCU
Cargo Capacity —	115,000 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	ZD-4
Transporters —	
standard 6-person	1
cargo	8

Other Data:

Crew —	24
Passengers —	6
Shuttlecraft —	4

Engines And Power Data:

Total Power Units Available —	29
Movement Point Ratio —	2/1
Loaded	6/1
Warp Engine Type —	KWB-3
Number —	2
Power Units Available —	13
Stress Charts —	O/O
Maximum Safe Cruising Speed —	Warp 8
Loaded	Warp 4
Emergency Speed —	Warp 9
Loaded	Warp 5
Impulse Engine Type —	KIB-1
Power Units Available —	3

Weapons And Firing Data:

Beam Weapon Type —	KD-1
Number —	2
Firing Arcs —	1 p f s, 1 p a s
Firing Chart —	B
Maximum Power —	4

Shields Data:

Deflector Shield Type —	KSE
Shield Point Ratio —	1/1
Maximum Shield Power —	11

Combat Efficiency:

D/WDF —	46/1.4
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G-5 (Tugboat) CLASS VIII CARGO TRANSPORT

Construction Data:

Model Numbers — A
Date Entering Service — 2/1012
Number Constructed — 386

Hull Data:

Superstructure Points — 12
Damage Chart — A
Size
Length — 110 m
Width — 80 m
Height — 40 m
Weight — 102,900 mt

Cargo
Cargo Capacity — 250,000 mt
Landing Capability — None

Equipment Data:

Control Computer Type — ZD-4
Transporters —
standard 6-person 1

Other Data:

Crew — 20
Passengers — 2
Shuttlecraft — 2

Engines And Power Data:

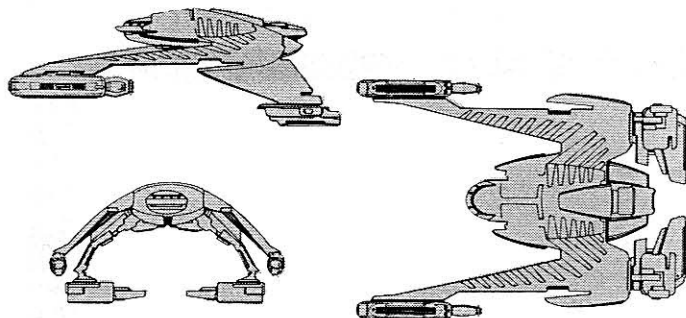
Total Power Units Available — 26
Movement Point Ratio — 3/1
Loaded 7/1
Warp Engine Type — KWE-1
Number — 2
Power Units Available — 11
Stress Charts — I/L
Maximum Safe Cruising Speed — Warp 6
Loaded Warp 4
Emergency Speed — Warp 8
Loaded Warp 5
Impulse Engine Type — KID-2
Power Units Available — 4

Shields Data:

Deflector Shield Type — KSG
Shield Point Ratio — 1/2
Maximum Shield Power — 9

Combat Efficiency:

D/WDF — 54.2/0



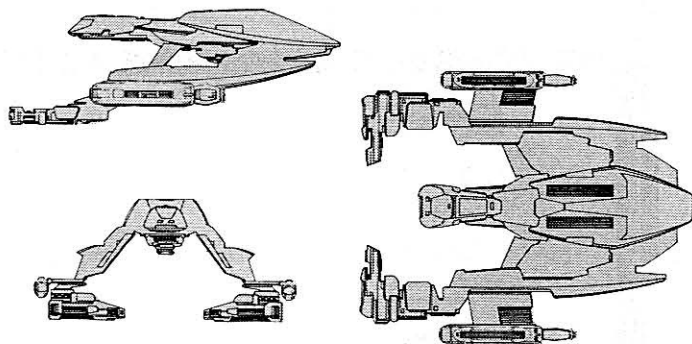
Notes:

Known Sphere Of Operation: Empire-wide use; the Triangle
Data Reliability: B

Major Data Source: Klingon Sector Intelligence, Triangle Sector Intelligence

Of the 386 G-5s built, 338 remain in active service, 21 have been destroyed, 2 have been captured by private interests in the Triangle, 13 are listed as missing, 3 have been scrapped, and 12 have been traded to the Romulans. The G-5 is manufactured at the facilities of Gnuu Re' and Taamar. Annual production rate is 30.

The name, an obvious reference to its function, is a translation of the Klingon *qexa*.



Notes:

Known Sphere Of Operation: Empire-wide use; the Triangle
Data Reliability: C

Major Data Source: Klingon Sector Intelligence, Triangle Sector Intelligence

Of the 252 G-6s built, 216 remain in active service, 17 have been destroyed, 7 are listed as missing, 2 have been scrapped, and 10 have been traded to the Romulans.

The G-6 is being produced at Iosia and Gnuu Re' at a combined rate of 28 per year.

The class name is from the Klingon *besz ra'te'*, which translates as "throwing machine".



G-6 (Catapult) CLASS VIII CARGO TRANSPORT

Construction Data:

Model Numbers — A
Date Entering Service — 2/1407
Number Constructed — 252

Hull Data:

Superstructure Points — 10
Damage Chart — B
Size
Length — 120 m
Width — 90 m
Height — 40 m
Weight — 115,800 mt

Cargo
Cargo Capacity — 280,000 mt
Landing Capability — None

Equipment Data:

Control Computer Type — ZD-6
Transporters —
standard 6-person 1
cargo 1

Other Data:

Crew — 22
Passengers — 3
Shuttlecraft — 2

Engines And Power Data:

Total Power Units Available — 44
Movement Point Ratio — 3/1
Loaded 6/1
Warp Engine Type — KWE-3
Number — 2
Power Units Available — 20
Stress Charts — J/M
Maximum Safe Cruising Speed — Warp 8
Loaded Warp 5
Emergency Speed — Warp 9
Loaded Warp 6
Impulse Engine Type — KID-2
Power Units Available — 4

Shields Data:

Deflector Shield Type — KSG
Shield Point Ratio — 1/2
Maximum Shield Power — 9

Combat Efficiency:

D/WDF — 69.3/6

W-2 (Koreba) CLASS II - III WARPSHUTTLE

Construction Data:

Model Numbers —	A	C	F
Ship Class —	II	III	II
Date Entering Service —	1/9009	2/1102	2/1812
Number Constructed —	863	50	280

Hull Data:

Superstructure Points —	4	8	4
Damage Chart —	C	C	C
Size —			
Length —	84 m	84 m	84 m
Width —	24 m	24 m	24 m
Height —	17 m	18 m	18 m
Weight —	14,300 mt	23,700 mt	14,500 mt

Cargo

Cargo Units —	28 SCU	28 SCU	28 SCU
Cargo Capacity —	1,400 mt	1,400 mt	1,400 mt
Landing Capability —	Yes	Yes	Yes

Equipment Data:

Control Computer Type —	ZD-2	ZD-4	ZD-2
Transporters —			
standard 6-person	1	1	1

Other Data:

Crew —	13	13	13
Passengers —	10	10	10

Engines And Power Data:

Total Power Units Available —	14	14	15
Movement Point Ratio —	1/1	2/1	1/1
Warp Engine Type —	KWB-2	KWB-2	KWB-2
Number —	1	1	1
Power Units Available —	12	12	12
Stress Charts —	O.P.	O.P.	O.P.
Maximum Safe Cruising Speed —	Warp 6	Warp 5	Warp 6
Emergency Speed —	Warp 7	Warp 6	Warp 7
Impulse Engine Type —	KIA-2	KIA-2	KIA-3
Power Units Available —	2	2	3

Weapons And Firing Data:

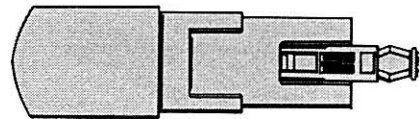
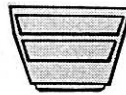
Beam Weapon Type —	KD-1	KD-2	KD-3
Number —	2	2	2
Firing Arcs —	2F	2F	2F
Firing Chart —	B	G	I
Maximum Power —	4	4	5
Damage Modifiers —	+1	(1 - 10)	(1 - 12)

Shields Data:

Deflector Shield Type —	KSC	KSD	KSE
Shield Point Ratio —	1/1	1/2	1/1
Maximum Shield Power —	11	13	12

Combat Efficiency:

D.WDF —	41.2/1.4	52.4/2.8	55.2/5.4
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Known Sphere of Operation: Empire-wide use; the Triangle
Data Reliability: A

Major Data Source: All models in Star Fleet possession

Of the 2193 W-2s built, 1087 As, 8 Cs, and 237 Fs remain in active service; 120 As and 16 Fs are used as training vessels; 567 have been destroyed; 46 have been captured, including 24 As and 2 Cs by Star Fleet, 13 As and 2 Fs by the Romulans, 3 As and 1 F by private interests in the Triangle, and 1 A by the Orions; 49 As and 3 Fs are listed as missing; 12 have been scrapped; and 48 have been sold or traded, including 27 As and 2 Fs to private interests in the Triangle, and 17 As and 4 Fs to the Orions. The W-2F is produced at the Taamar, Fonawl, Z'hai, and H'rez facilities at a combined rate of 60 per year; all other models are out of production.

The class is named for a small rodent native to Klinzhai. This creature carries its young in pouches located along its back.



W-4 (Speedstar) CLASS III WARPSHUTTLE

Construction Data:

Model Numbers —	A	B
Date Entering Service —	2/1110	2/1504
Number Constructed —	594	394

Hull Data:

Superstructure Points —	4	5
Damage Chart —	C	C
Size —		
Length —	90 m	90 m
Width —	20 m	20 m
Height —	20 m	20 m
Weight —	21,100 mt	24,300 mt

Cargo

Cargo Units —	30 SCU	30 SCU
Cargo Capacity —	1,500 mt	1,500 mt
Landing Capability —	Yes	Yes

Equipment Data:

Control Computer Type —	ZD-3	ZD-4
Transporters —		
standard 6-person cargo	1	1
	1	1

Other Data:

Crew —	10	10
Passengers —	20	20

Engines And Power Data:

Total Power Units Available —	21	21
Movement Point Ratio —	1/1	1/1
Warp Engine Type —	KWB-1	KWB-1
Number —	2	2
Power Units Available —	9	9
Stress Charts —	O.Q.	O.Q.
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 8	Warp 8
Impulse Engine Type —	KIB-1	KIB-1
Power Units Available —	3	3

Weapons And Firing Data:

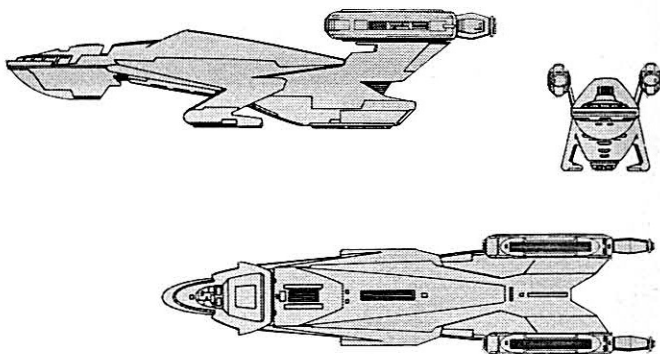
Beam Weapon Type —	KD-10	KD-2
Number —	2	2
Firing Arcs —	1f p, 1f s	1f p, 1f s
Firing Chart —	C	G
Maximum Power —	3	4
Damage Modifiers —	+1	(1 - 10)

Shields Data:

Deflector Shield Type —	KSI	KSD
Shield Point Ratio —	1/1	1/1
Maximum Shield Power —	14	12

Combat Efficiency:

D.WDF —	55.2/1.4	83.1/2.8
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Notes:

Known Sphere Of Operation: Empire-wide use; the Triangle
Data Reliability: A

Major Data Source: All models in Star Fleet possession

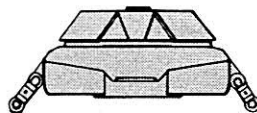
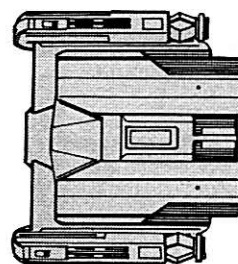
Of the 988 W-4s built, 437 As and 355 Bs remain in active service; 8 As and 4 Bs are used as training vessels; 113 have been destroyed; 15 have been captured, including 7 As and 1 B by Star Fleet, 3 As and 2 Bs by the Romulans, and 1 A and 1 B by private interests in the Triangle; 18 As and 7 Bs are listed as missing; and 31 have been traded or sold, including 16 As and 5 Bs to private interests in the Triangle, and 8 As and 2 Bs to the Orions. The W-4 is produced at the Taamar, Fonawl, and Z'hai facilities at a combined rate of 50 per year.

The name is from the Klingon *kas maal*.



S-4 (Mender) CLASS VI REPAIR TENDER

Construction Data:		
Model Numbers —	A	B
Date Entering Service —	2/0607-2/2202	2/1801
Number Constructed —	410	106
Hull Data:		
Superstructure Points —	12	12
Damage Chart —	C	C
Size		
Length —	90 m	90 m
Width —	101 m	101 m
Height —	40 m	40 m
Weight —	76,600 mt	88,600 mt
Cargo		
Cargo Units —	110 SCU	110 SCU
Cargo Capacity —	5,500 mt	5,500 mt
Landing Capability —	Yes	Yes
Equipment Data:		
Control Computer Type —	ZD-5	ZD-5
Transporters —		
standard 6-person	2	2
cargo	1	1
Other Data:		
Crew —	108	115
Passengers —	5	5
Shuttlecraft —	2	2
Engines And Power Data:		
Total Power Units Available —	32	40
Movement Point Ratio —	3/1	4/1
Warp Engine Type —	KWC-1	KWD-1
Number —	2	2
Power Units Available —	14	18
Stress Charts —	L/O	L/N
Maximum Safe Cruising Speed —	Warp 7	Warp 6
Emergency Speed —	Warp 8	Warp 8
Impulse Engine Type —	KIC-2	KIC-2
Power Units Available —	4	4
Weapons And Firing Data:		
Beam Weapon Type —	KD-1	KD-14
Number —	4	4
Firing Arcs —	1f p, 1f s, 1a p, 1a s	1f p, 1f s, 1a p, 1a s
Firing Chart —	B	D
Maximum Power —	4	8
Damage Modifiers —		(1 - 6)
Shields Data:		
Deflector Shield Type —	KSF	KSF
Shield Point Ratio —	2/3	2/3
Maximum Shield Power —	10	10
Combat Efficiency:		
DWDF —	53.9/2.8	53.2/8.4



Notes:

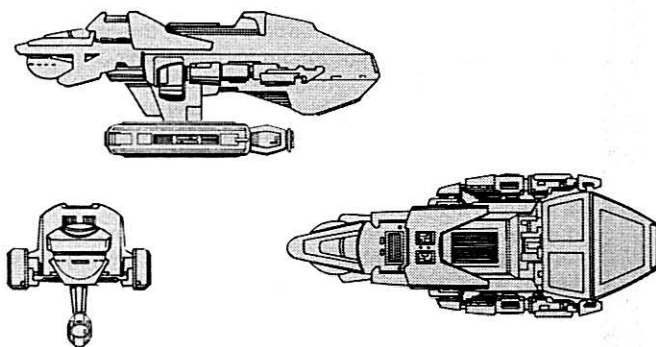
Known Sphere Of Operation: Empire-wide use, frequently operates in the Triangle

Data Reliability: A for S-4A; C for S-4B

Major Data Source: Model A in Star Fleet possession; Klingon Sector Intelligence

Of the 516 S-4s built, 431 remain in active service, 2 are used as training vessels, 29 have been destroyed, 5 have been captured (1 A and 2 Bs by Star Fleet, and 2 As and 1 B by private interests in the Triangle), 2 As and 1 B are listed as missing, 10 have been scrapped, and 21 have been sold or traded (6 As and 3 Bs to the Orions, 8 As and 3 Bs to private interests in the Triangle, and 1 A to the Romulans. The S-4 is being produced at the Taamar, Gnuu Re', and Mustaka facilities at a combined rate of 21 per year. All active S-4As have been converted to the B model.

The name, a reference to its repair function, is from the Klingon *k'nall*.



Notes:

Known Sphere Of Operation: All Border areas

Data Reliability: A

Major Data Source: Vessel in Star Fleet possession

Of the 262 S-5s built, 237 remain in active service, 2 are used as training vessels, 16 have been destroyed, 4 have been captured (2 by Star Fleet and 2 by the Romulans), 1 is listed as missing, 1 has been scrapped, and 1 has been sold to private interests in the Triangle. The S-5 is produced at the Gnuu Re' facility at a rate of 12 per year.

The name is a reference to the duties of the vessel; the Klingon class name is *Eakin K'nall*, which translates to "ear healer".



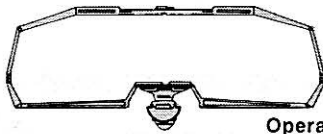
S-5 (Healer) CLASS IV REPAIR TENDER

Construction Data:	
Model Numbers —	A
Date Entering Service —	2/0412
Number Constructed —	262
Hull Data:	
Superstructure Points —	5
Damage Chart —	B
Size	
Length —	185 m
Width —	70 m
Height —	70 m
Weight —	35,360 mt
Cargo	
Cargo Units —	300 SCU
Cargo Capacity —	15,000 mt
Landing Capability —	None
Equipment Data:	
Control Computer Type —	ZD-3
Transporters —	
standard 6-person	2
cargo small	2
cargo large	2
Other Data:	
Crew —	36
Shuttlecraft —	10
Engines And Power Data:	
Total Power Units Available —	17
Movement Point Ratio —	2/1
Warp Engine Type —	KWC-1
Number —	1
Power Units Available —	14
Stress Charts —	K/N
Maximum Safe Cruising Speed —	Warp 7
Emergency Speed —	Warp 8
Impulse Engine Type —	KIB-1
Power Units Available —	3
Weapons And Firing Data:	
Beam Weapon Type —	KD-2
Number —	2
Firing Arcs —	2f p s
Firing Chart —	G
Maximum Power —	4
Damage Modifiers —	(1 - 10)
Shields Data:	
Deflector Shield Type —	KSI
Shield Point Ratio —	1/1
Maximum Shield Power —	14
Combat Efficiency:	
DWDF —	39.1/2.8

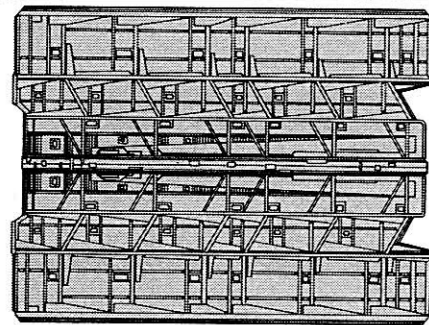
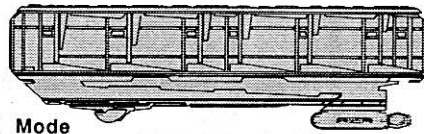
S-8 (Murph) CLASS VI MOBILE REPAIR FACILITY



Traveling Mode



Operational Mode



Construction Data:

Model Numbers—	A	B
Date Entering Service—	2/1208	2/2003
Number Constructed—	344	280

Hull Data:

Superstructure Points—	15	15
Damage Chart—	C	C
Size		
Length—	259 m	259 m
Width—	191 m	191 m
Height—	76 m	76 m
Weight—	75,500 mt	76,900 mt

Cargo

Cargo Units—	100 SCU	200 SCU
Cargo Capacity—	5,000 mt	10,000 mt
Landing Capability—	None	None

Equipment Data:

Control Computer Type—	ZD-5	ZD-5
Transporters—		
standard 6-person	2	2
emergency 18-person	1	1
cargo	2	2

Other Data:

Crew—	142	166
Passengers—	60	80
Shuttlecraft—	2	4

Engines And Power Data:

Total Power Units Available—	20	24
Movement Point Ratio—	4/1	3/1
Warp Engine Type—	KWE-2	KWE-3
Number—	1	1
Power Units Available—	16	20
Stress Charts—	I/M	L/M
Maximum Safe Cruising Speed—	Warp 6	Warp 7
Emergency Speed—	Warp 7	Warp 8
Impulse Engine Type—	KIC-2	KIC-2
Power Units Available—	4	4

Weapons And Firing Data:

Beam Weapon Type—		KD-12
Number—		2
Firing Arcs—		1f/p/s, 1a/p/s
Firing Chart—		H
Maximum Power—		9
Damage Modifiers—		
+3		(1-3)
+2		(4-8)
+1		(9-10)

Shields Data:

Deflector Shield Type—	KSG	KSG
Shield Point Ratio—	1/2	1/2
Maximum Shield Power—	11	11

Combat Efficiency:

D/WDF—	51.5/0	58.5/7.4
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Notes:

Known Sphere Of Operation: Empire-wide use; the Triangle
Data Reliability: C

Major Data Source:

Klingon Sector Intelligence, Operation Dixie

The S-8 was the first mobile repair facility in known space. Lessons learned during the Four Years War, during which front-line repair of warships was inefficient, showed that faster repair capabilities were needed. The only way this could be accomplished was to take the facility to the area of conflict, and the Imperial Command constructed a vessel that would be capable of traveling with the fleets and performing any repairs. On Stardate 2/1208, the first S-8s were commissioned and sent to join various fleets.

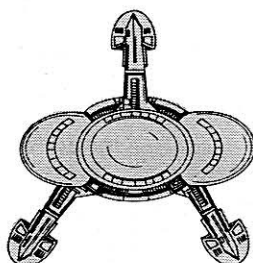
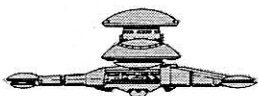
The S-8 has two configurations, one for travel (shown in the accompanying three-quarter view) and one for operation (shown in the three views). After arriving at its destination, the S-8 unfolds into its operational mode and begins repairing damaged vessels. In most cases, the damaged ship is brought inside the S-8 so that all damage can be repaired quickly. Damaged vessels are arranged in and around the facility to take advantage of its structural cranes and tractor fields. An S-8 repairing several different ships at once will give the most peculiar readings on sensor scan.

When the MRFs were first commissioned, they were considered to be so unmaneuverable that mounting weapons was impractical. To avoid the shame of commanding an unarmed vessel, two to five gunboats are assigned to its protection and are under the command of the S-8's captain. The B model is armed with two disruptors, and recent intelligence reports indicate that the S-8As are modifying themselves to the S-8B configuration.

Of the 362 S-8s built, 74 As and 279 Bs remain in active service, 2 As are used as training vessels, 2 have been destroyed, 1 A is listed as missing, 3 have been scrapped, and 1 A has been sold to private interests in the Triangle. The S-8s are officially being produced at Iosia, but some have been manufactured by other S-8's.

The class name is from the abbreviation of the vessel type, MRF; the Klingon class name is *H'ban Pav*, which translates to "folding box".

Z-4 (Deathgame) DEFENSE OUTPOST



Construction Data:

Model Numbers —	B	C
Date Entering Service —	1/8902-2/1911	2/1403
Number Constructed —	311	201

Hull Data:

Superstructure Points —	60	70
Damage Chart —	C	C
Size		
Length —	320 m	320 m
Width —	300 m	300 m
Height —	110 m	110 m
Weight —	1,800,000 mt	1,850,000 mt

Cargo

Cargo Units —	1,100 SCU	1,200 SCU
Cargo Capacity —	55,000 mt	60,000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	ZD-5A	ZD-8
Transporters —		
standard 6-person	6	6
combat 22-person	4	4
emergency 18-person	4	4
cargo	3	3

Other Data:

Crew —	440	455
Passengers —	260	260
Shuttlecraft —	24	24

Engines And Power Data:

Total Power Units Available —	164	198
Movement Point Ratio —	10/1	10/1
Warp Engine Type —	KMAPG-2	KMAPG-3
Number —	1	1
Power Units Available —	144	170
Impulse Engine Type —	KIPG-2	KIPG-3
Power Units Available —	20	28

Weapons And Firing Data:

Beam Weapon Type —	KD-6	KD-8
Number —	12	18
Firing Arcs —	4/ARC	6/ARC
Firing Chart —	T	U
Maximum Power —	6	7
Damage Modifiers —		
+3	(1 - 3)	(1 - 7)
+2	(4 - 8)	(8 - 15)
+1	(9 - 10)	(16 - 20)
Beam Weapon Type —	KD-12	KD-12
Number —	9	9
Firing Arcs —	3/ARC	3/ARC
Firing Chart —	H	H
Maximum Power —	9	9
Damage Modifiers —		
+3	(1 - 3)	(1 - 3)
+2	(4 - 8)	(4 - 8)
+1	(9 - 10)	(9 - 10)
Missile Weapon Type —	KP-6	KP-6
Number —	6	6
Firing Arcs —	2/ARC	2/ARC
Firing Chart —	R	R
Power To Arm —	2	2
Damage —	20	20

Shields Data:

Deflector Shield Type —	KS	KS
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	15	15

Combat Efficiency:

D/WDF —	153.8/83.4	178/178.5
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Notes:

Known Sphere Of Operation: Empire Borders

Data Reliability: B

Major Data Source: Klingon Sector Intelligence

Beginning in Stardate 1/8902, five years prior to the outbreak of the Four Years War, the Klingons began to supplement their forward listening posts with the Z-4. These fortresses were placed in the areas where the Klingons wished to deny or restrict enemy movement. Since their introduction, the Klingons have constantly added to their number. Major defense points (such as starbases) will have more than one Z-4. Several points along the Federation and Triangle border are known to have as many as eight, each giving the others covering fire.

The Z-4 is so large that it must be built in place; if one must ever be moved, it is disassembled into six different sections and each one brought to the new location. Most of these outposts are found within a planetary system, but some areas requiring defensive boundaries do not have this luxury.

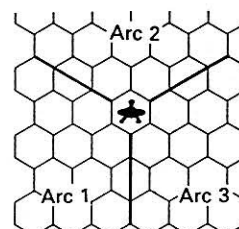
When first introduced, the Z-4 was capable of fulfilling its mission completely as designed, but with ships becoming more and more powerful, it was inevitable that they be upgraded. The Z-4A remained in service for 30 years before all were refitted.

On Stardate 2/1403, the first of the replacement outposts, the Z-4C, was commissioned. This model uses the KMAPG-3 powerplant and the KIPG-3 impulse generator. The weapons systems have been upgraded by increasing the number and power of long-range disruptors and the number of close-defense disruptors; in addition, the formidable KP-6 has been mounted to fire 2 torpedoes per arc. With this increase in weaponry, and an offensive range of 200,000 km, the Z-4C is not a likely target for small groups of ships.

Since the introduction of the Z-4C, the production rate has averaged 23 per year. Reports indicate that a faction within the Triangle is attempting to purchase one of these facilities.

In the Klingon navy, command of these outposts is not sought after. The duty is considered to be demeaning as it doesn't allow many chances, if any, for glory in combat. The commanders of these bases have a great deal of power in their hands nevertheless. The bases are usually accompanied by repair facilities and other much needed diversions for front line units, all under the base commander's jurisdiction.

The name is a translation of the Klingon *zha mortas*.



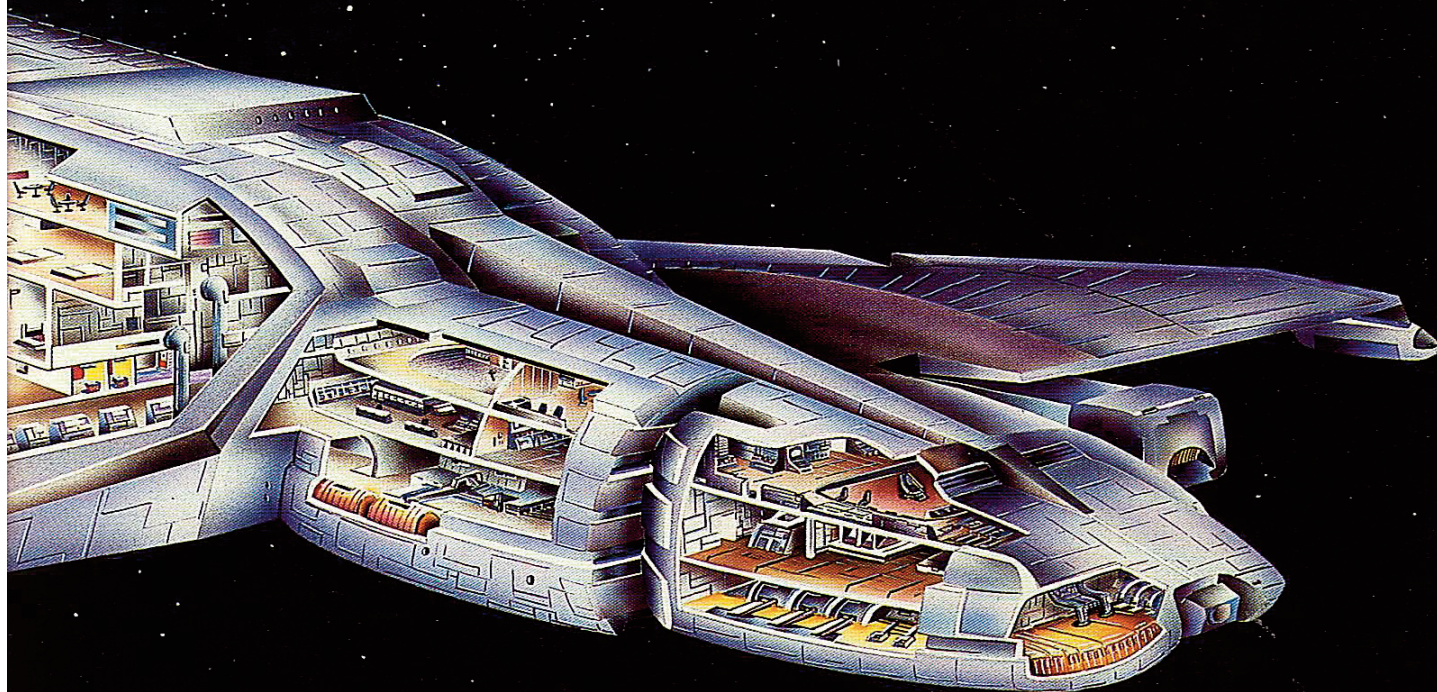
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ROMULAN



2303

SHIP RECOGNITION MANUAL



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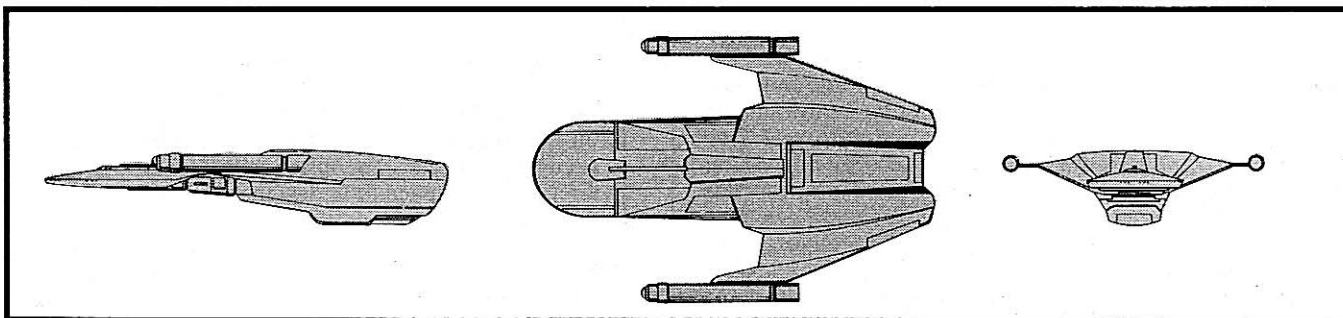
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M-4 (Wings Of Justice) Class IX Troop Transport



M-4 (Wings Of Justice) CLASS IX TROOP TRANSPORT

Construction Data:

Model Numbers —	Type 1
Date Entering Service —	2/08
Approx. Number Constructed —	150

Hull Data:

Superstructure Points —	14
Damage Chart —	B
Size	
Length —	270 m
Width —	180 m
Height —	50 m
Weight —	126,500 mt

Cargo

Cargo Units —	6000 SCU
Cargo Capacity —	300,000 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	R4M
Transporters —	
Standard 9-person	8
Combat 20-person	8
Cargo	4
Cloaking Device Type —	None

Other Data:

Crew —	84
Troops —	1800
Shuttlecraft —	6

Engines And Power Data:

Total Power Units Available —	40
Movement Point Ratio —	
Unloaded	4/1
Loaded	7/1
Warp Engine Type —	RWF-1
Number —	2
Power Units Available —	18
Stress Charts —	G/L
Maximum Safe Cruising Speed —	
Unloaded	Warp 7
Loaded	Warp 4
Emergency Speed —	
Unloaded	Warp 9
Loaded	Warp 6
Impulse Engine Type —	RID-1
Power Units Available —	4

Weapons And Firing Data:

Beam Weapon Type —	RB-7a
Number —	2
Firing Arcs —	1 port, 1stbd
Firing Chart —	M
Maximum Power —	4
Damage Modifiers —	
+3	(1 - 3)
+2	(4 - 9)
+1	(10 - 14)

Shields Data:

Deflector Shield Type —	RSE
Shield Point Ratio —	1/2
Maximum Shield Power —	5

Combat Efficiency: D-	56.0
WDF-	6.0

Notes:

Known Sphere Of Operation: Conflict zones

Data Reliability: D

Major Data Source: Project Grey Ghost; Klingon Sector Intelligence

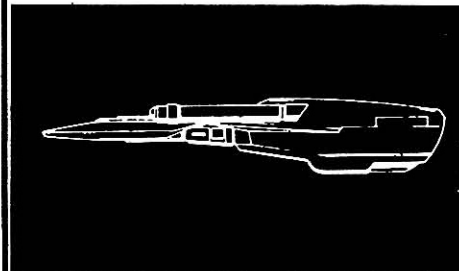
The M-4 assault ship, reportedly capable of carrying up to 300,000 metric tons of cargo or 1,800 troops and their equipment, is thought to be the main transport for Romulan ground forces. Introduced about Stardate 2/08, intelligence reports that the vessels have participated in several invasions. Of the more than 150 built, nearly all remain in active service. Intelligence reports show no record of any being sold to the civil sector, and none are known to be operating outside the empire.

The vessel likely is named in reference to the following quote:

The Romulan soldier will lead the way and secure the foundations of the Road to the Stars, for he will be borne on the wings of justice.

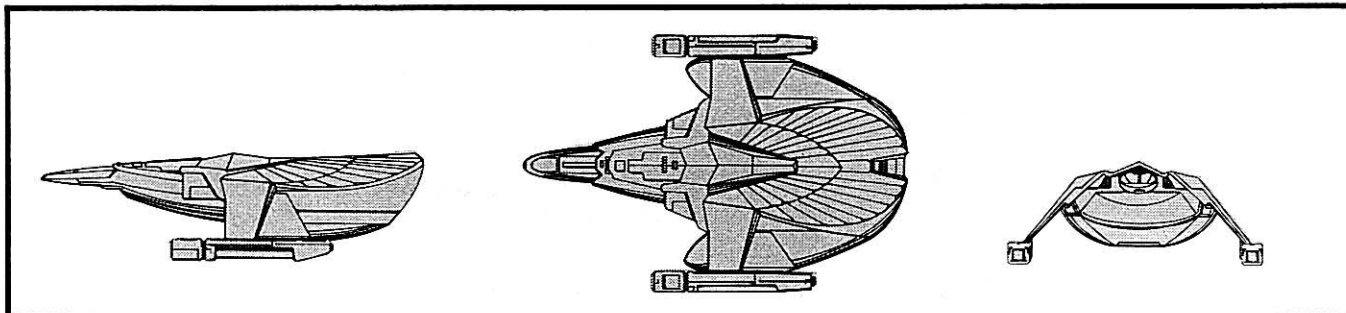
*Arenius Triario
Commander*

According to *The Eridam Papers*, this historic statement was made by Commander Triario as the Romulan fleet departed for a great battle with the Corillians. Triario was victorious and returned a hero.





M-8 (Nightwing) Class VIII Assault Ship



M-8 (Nightwing) CLASS VIII ASSAULT SHIP

Construction Data:

Hull/Ship Numbers —	Type 1
Model Numbers —	2/14
Date Entering Service —	100
Approx. Number Constructed —	

Hull Data:

Superstructure Points —	12
Damage Chart —	B
Size	
Length —	260 m
Width —	172 m
Height —	72 m
Weight —	103,500 mt

Cargo

Cargo Units —	2000 SCU
Cargo Capacity —	100,000 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	R4M
Transporters —	
Standard 9-person	3
Combat 20-person	5
Large cargo	3
Cloaking Device Type —	None

Other Data:

Crew —	62
Troops —	700
Shuttlecraft —	4

Engines And Power Data:

Total Power Units Available —	38
Movement Point Ratio —	
Unloaded	3/1
Loaded	4/1
Warp Engine Type —	RWE-1
Number —	2
Power Units Available —	13
Stress Charts —	I/L
Maximum Safe Cruising Speed —	
Unloaded	Warp 7
Loaded	Warp 6
Emergency Speed —	
Unloaded	Warp 8
Loaded	Warp 7
Impulse Engine Type —	RID-3
Power Units Available —	12

Weapons And Firing Data:

Beam Weapon Type —	RB-7a
Number —	2
Firing Arcs —	1 port, 1 stbd
Firing Chart —	M
Maximum Power —	4
Damage Modifiers —	
+3	(1 - 3)
+2	(4 - 9)
+1	(10 - 14)

Shields Data:

Deflector Shield Type —	RSH
Shield Point Ratio —	1/2
Maximum Shield Power —	8

Combat Efficiency: D-	63.2
WDF-	6.0

Notes:

Known Sphere Of Operation: Conflict areas

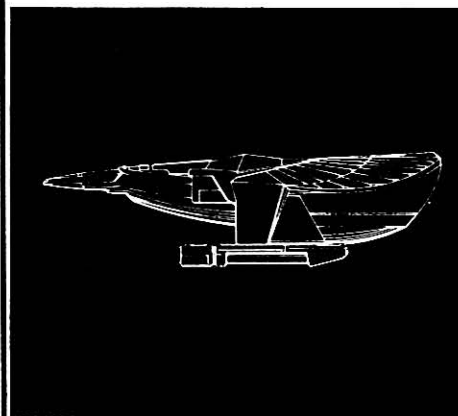
Data Reliability: D

Major Data Source: Project Grey Ghost; Triangle Sector Intelligence

Useful for both troops and cargos, the *M-8* assault ships are reported to be the second most important troop carriers in the Romulan Navy. Although the *M-8s* do not carry as many troops as do the *M-4s*, they are capable of keeping pace with any fast-moving fleet, as well as being more maneuverable than their counterparts and carrying more effective shields.

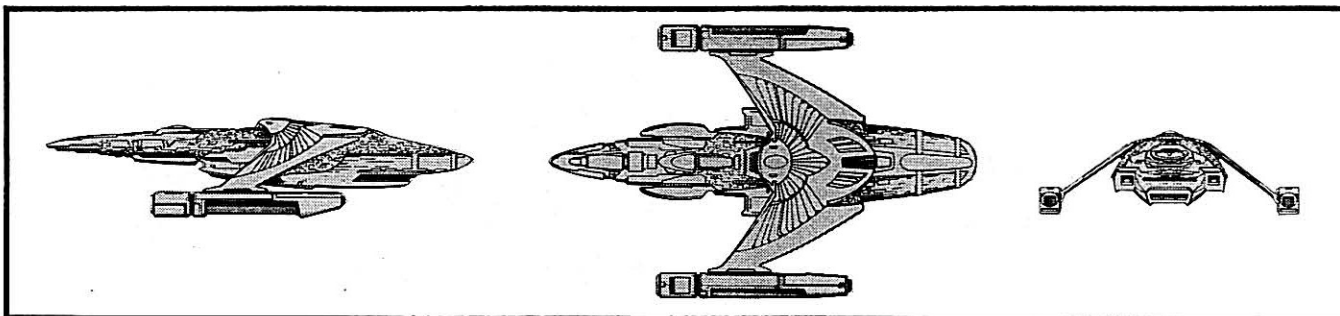
Of the approximately 100 built, nearly all are in active service. Approximately 60 vessels of this class are thought to be operating in the civil sector, but, until close scans are possible, this will remain speculation. If the expected confirmation is forthcoming, intelligence will upgrade the Data Reliability to B, for several of these vessels are suspected to be operating in the Triangle.

The class is named from the Romulan *temar vastari* (night flyers), in reference to a large reptilian bird of Hann-rileth, solid black in color. In keeping with its namesake, the assault ships reportedly are painted midnight black.





Z-1 (Nova) Class XIII Battleship



Z-1 (Nova) CLASS XIII BATTLESHIP

Construction Data:

Model Numbers —	Type 1
Date Entering Service —	2/21
Rptd. Number Constructed —	2

Hull Data:

Superstructure Points —	35
Damage Chart —	C
Size	
Length —	400 m
Width —	240 m
Height —	80 m
Weight —	212,000 mt

Cargo

Cargo Units —	400 SCU
Cargo Capacity —	20,000 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	R6M
Transporters —	
Standard 9-person	6
Emergency 20-person	6
Cargo	2
Cloaking Device Type —	None

Other Data:

Crew —	550
Shuttlecraft —	15

Engines And Power Data:

Total Power Units Available —	76
Movement Point Ratio —	5/1
Warp Engine Type —	RWG-1
Number —	2
Power Units Available —	24
Stress Charts —	G/L
Maximum Safe Cruising Speed —	Warp 6
Emergency Speed —	Warp 8
Impulse Engine Type —	RIF-3
Power Units Available —	28

Weapons And Firing Data:

Beam Weapon Type —	RB-11
Number —	10, in 5 banks of 2
Firing Arcs —	2 p/f, 2 fwd, 2 f/s, 2 s/a, 2 a/p
Firing Chart —	V
Maximum Power —	9
Damage Modifiers —	
+3	(1 - 10)
+2	(11 - 16)
+1	(17 - 21)
Missile Weapon Type —	RP-3
Number —	6
Firing Arcs —	1 port, 2 fwd, 1 stbd, 2 aft
Firing Chart —	Q
Power To Arm —	1
Damage —	10

Shields Data:

Deflector Shield Type —	RSO
Shield Point Ratio —	1/3
Maximum Shield Power —	15

Combat Efficiency: D-	103.0
WDF-	112.0

Notes:

Known Sphere Of Operation: Empire interior

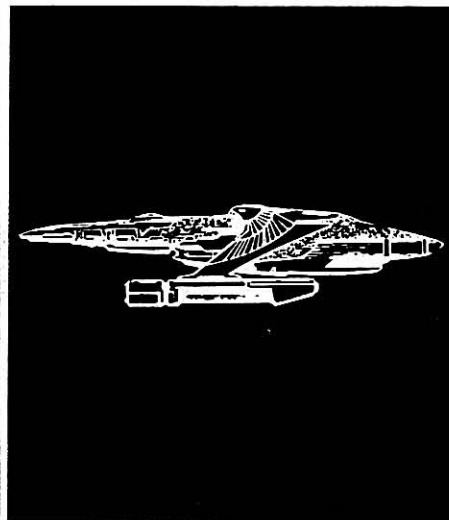
Data Reliability: E

Major Data Source: Project Grey
Ghost data acquisition

The Z-1 is the largest, most powerful, and newest ship to enter Romulan Naval service, and the Navy's first battleship to be commissioned. This vessel is reported to incorporate all of the most-modern technology available to the Star Empire, making it a formidable foe.

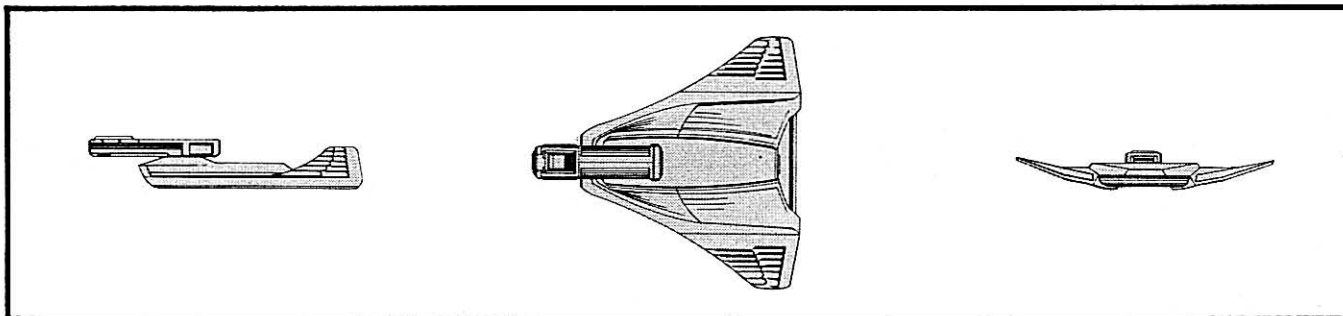
Commissioned into the home fleet on Stardate 2/2111, according to monitored transmissions, this ship has never been sent into a frontline area. The Z-1 is thought to mount ten of the most powerful disruptors available and six photon torpedo bays, capable of laying down a withering barrage in all directions. It is expected to change the balance of power when it is brought to the borders. Reportedly, four of these ships are nearing completion, and reported production quotas of four per year are not encouraging.

The class is named from the Romulan *morlasasi stelam* (exploding star).





CS-2 (Graceful Flyer) Class V Courier



CS-2 (Graceful Flyer) CLASS V COURIER

Construction Data:

Model Numbers—	Type 2	Type 6	Type 10
Date Entering Service—	1/86	1/98	2/05
Approx. Number Constructed—	120	70	110

Hull Data:

Superstructure Points—	7	7	8
Damage Chart—	A	A	A
Size			
Length—	164 m	164 m	164 m
Width—	156 m	156 m	156 m
Height—	30 m	31 m	31 m
Weight—	42,100 mt	43,900 mt	46,100 mt
Cargo			
Cargo Units—	24 SCU	24 SCU	24 SCU
Cargo Capacity—	1200 mt	1200 mt	1200 mt
Landing Capability—	Yes	Yes	Yes

Equipment Data:

Control Computer Type—	R2M	R3M	R3M
Transporters—	—	—	—
Standard 9-person	1	1	1
Emergency 20-person	1	1	1

Other Data:

Crew—	118	118	118
Passengers—	30	30	30
Shuttlecraft—	None	None	None

Engines And Power Data:

Total Power Units Available—	20	23	30
Movement Point Ratio—	2/1	2/1	2/1
Warp Engine Type—	RWD-1	RWD-2	RWD-2
Number—	1	1	1
Power Units Available—	15	18	18
Stress Charts—	N/O	O/Q	O/Q
Maximum Safe Cruising Speed—	Warp 7	Warp 7	Warp 7
Emergency Speed—	Warp 8	Warp 8	Warp 8
Impulse Engine Type—	RIB-3	RIB-3	RIB-3
Power Units Available—	5	5	12

Weapons And Firing Data:

Beam Weapon Type—	RB-2	RB-7	RB-8
Number—	2	2	2
Firing Arcs—	1 f/p, 1 f/s	1 f/s, 1 f/p	1 f/p, 1 f/s
Firing Chart—	K	J	N
Maximum Power—	2	4	6
Damage Modifiers—	None	—	(1 - 4)
+3	—	—	(5 - 9)
+2	—	(1 - 6)	(10 - 13)
+1	—	(7 - 10)	—

Shields Data:

Deflector Shield Type—	RSD	RSD	RSE
Shield Point Ratio—	1/1	1/1	1/2
Maximum Shield Power—	8	8	8

Combat Efficiency:

D-	36.0	38.0	65.4
WDF-	1.6	4.6	8.2

Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: A

Major Data Source: Type 10 vessel is in Star Fleet possession; captured Romulan data

The ships in this class were used for long-range courier missions for many years. Carrying light armament, they were used extensively along the Federation borders and in the Triangle. Because they can sustain Warp 7 speeds, they have been used as VIP transport throughout the Star Empire.

About Stardate 1/8608, the CS-2 Type 2 was introduced into service to replace the Type 1; though quite suitable for its role, its weapon systems were light, a trend that continued until the introduction of the Type 6 about Stardate 1/9804. This newer model carried an upgraded beam weapon and mounted a more powerful engine; existing vessels of Types 2 through 5 were not refitted, but were relegated to duties within the Empire. Types 7 through 9 showed cosmetic changes to the Type 6, but about Stardate 2/0510, the Type 10 was introduced with new-style shields and more powerful weapons and engines. Vessels in this class were put into the reserve fleets about Stardate 2/14.

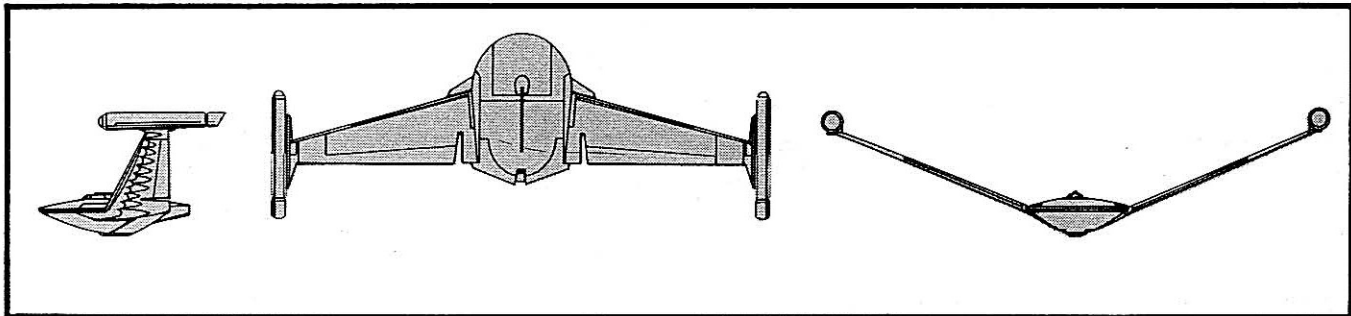
Of the approximately 300 built, about 150 currently serve in the reserve fleet. It is known that at least 90 have been sold to the private sector; one Type 5, one Type 7, and one Type 10 operate exclusively in the Triangle.

Named for the *verelan vastarum* (graceful flyer), a Romulan bird known for its ability to glide gracefully for hours at a time, these ships are common along the borders of the Star Empire, though they normally are not involved in military missions.





V-1 (Starglider) Class V Cruiser



V-1 (Starglider) CLASS V CRUISER

Construction Data:

Model Numbers—	Type 1	Type 2
Date Entering Service—	1/88	1/98
Approx. Number Constructed—	70	40

Hull Data:

Superstructure Points—	10	11
Damage Chart—	C	C
Size		
Length—	60 m	60 m
Width—	162 m	162 m
Height—	40 m	40 m
Weight—	48,700 mt	52,000 mt
Cargo		
Cargo Units—	120 SCU	120 SCU
Cargo Capacity—	6000 mt	6,000 mt
Landing Capability—	Yes	Yes

Equipment Data:

Control Computer Type—	R3M	R3M
Transporters—		
Standard 9-person	1	1
Emergency 20-person	1	1
Small cargo	1	1

Other Data:

Crew—	135	135
Passengers—	16	16
Shuttlecraft—	None	None

Engines And Power Data:

Total Power Units Available—	20	23
Movement Point Ratio—	2/1	2/1
Warp Engine Type—	RWD-2	RWD-2
Number—	1	1
Power Units Available—	18	18
Stress Charts—	O/Q	O/Q
Maximum Safe Cruising Speed—	Warp 7	Warp 7
Emergency Speed—	Warp 8	Warp 8
Impulse Engine Type—	RIB-1	RIB-3
Power Units Available—	2	5

Weapons And Firing Data:

Beam Weapon Type—	RB-2	RB-7
Number—	6	6
Firing Arcs—	1 p/a, 4 fwd, 1 s/a	1 p/a, 4 fwd, 1 s/a
Firing Chart—	K	J
Maximum Power—	2	4
Damage Modifiers—	None	
+2		(1 - 6)
+1		(7 - 10)

Shields Data:

Deflector Shield Type—	RSD	RSG
Shield Point Ratio—	1/1	1/1
Maximum Shield Power—	8	13

Combat Efficiency:

D-	40.3	50.7
WDF-	4.8	13.8

Notes:

Known Sphere Of Operation:
Romulan interior

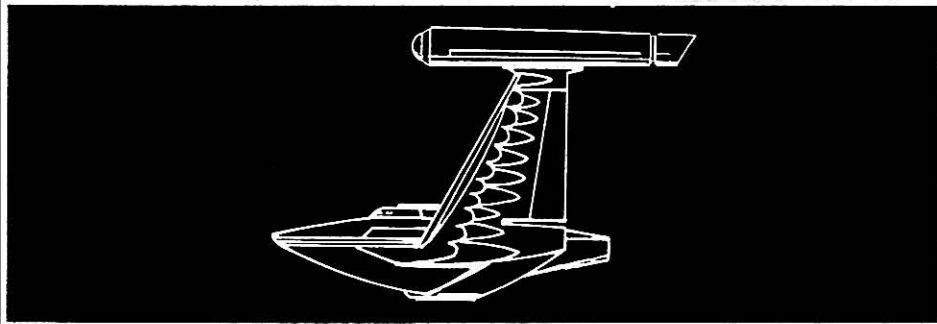
Data Reliability: D

Major Data Source: Project Grey
Ghost

Soon after its introduction into exploratory service, the V-1 vessels were found to be unsuitable for their mission. The cramped quarters and work areas would not permit extensive onboard research and testing, which meant that the ships were compelled to land on most worlds to carry out their studies. Not only were such atmospheric operations difficult, but the exposure of the entire ship to unknown environments put them in constant danger. These risks were unacceptable to the Romulan High Command, so the class was reassigned as cruisers to supplement the fleets. It evidently saw no greater success in this role, for it was removed from active service about Stardate 2/0806. The Type 2 mounted better, bank-mounted weaponry and a more powerful impulse drive.

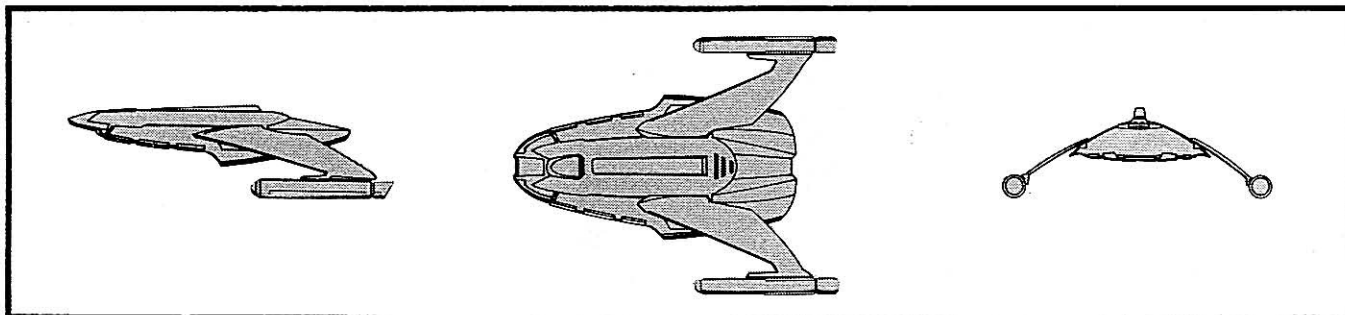
Of the approximately 100 built, half are assigned to reserve fleets. Eighteen have been sold to the civil sector, where they are used as private research vessels; two operate exclusively within the Triangle.

The class is named for *Vadaso Stelri* (glider in the stars), an asteroid in the Romulan home system. Ancient legend is reported to state that this glider was a returning message from the gods, directing the Romulans to follow it on its road through the stars.





V-2 (Hunter) Class VII Cruiser



V-2 (Hunter) CLASS VII CRUISER

Construction Data:		
Model Numbers —	Type 2	Type 5
Date Entering Service —	1/91	2/00
Approx. Number Constructed —	40	30
Hull Data:		
Superstructure Points —	14	14
Damage Chart —	C	C
Size		
Length —	150 m	153 m
Width —	118 m	118 m
Height —	40 m	40 m
Weight —	88,600 mt	88,700 mt
Cargo		
Cargo Units —	240 SCU	125 SCU
Cargo Capacity —	12,000 mt	6250 mt
Landing Capability —	None	None
Equipment Data:		
Control Computer Type —	R4M	R4M
Transporters —		
Standard 9-person	3	3
Emergency 20-person	2	2
Cargo	1	1
Cloaking Device Type —	None	None
Other Data:		
Crew —	220	225
Shuttlecraft —	2	2
Engines And Power Data:		
Total Power Units Available —	35	37
Movement Point Ratio —	3/1	3/1
Warp Engine Type —	RWD-1	RWD-1
Number —	2	2
Power Units Available —	16	16
Stress Charts —	O/O	O/O
Maximum Safe Cruising Speed —	Warp 6	Warp 6
Emergency Speed —	Warp 7	Warp 7
Impulse Engine Type —	RIB-2	RIB-3
Power Units Available —	3	5
Weapons And Firing Data:		
Beam Weapon Type —	RB-4	RB-4
Number —	6	6
Firing Arcs —	2 f/p, 2 f/s, 2 aft	2 f/p, 2 f/s, 2 aft
Firing Chart —	J	J
Maximum Power —	6	6
Damage Modifiers —		
+3	(1 - 2)	(1 - 2)
+2	(3 - 6)	(3 - 6)
+1	(7 - 10)	(7 - 10)
Plasma Weapon Type —	None	RPL-1
Number —		1
Firing Arcs —		fwd
Firing Chart —		E
Power To Arm —		10
Damage —		See Chart
Shields Data:		
Deflector Shield Type —	RSG	RSJ
Shield Point Ratio —	1/1	1/1
Maximum Shield Power —	12	14
Combat Efficiency:		
D-	54.0	59.5
WDF-	12.8	23.1

Notes:

Known Sphere Of Operation:
Romulan interior

Data Reliability: F

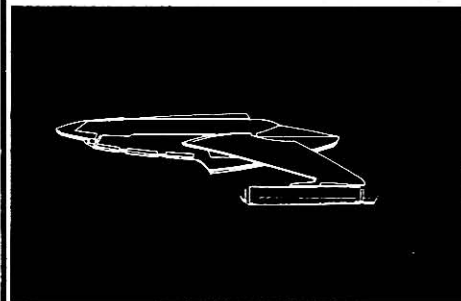
Major Data Source: Project Grey
Ghost data acquisition

The V-2 Class, first encountered by Project Grey Ghost, is believed to have been built for research missions, much like the Federation research cruisers are. Reportedly, spacious laboratory facilities and shuttlebays for cargo storage make this ship an oddity in the Romulan navy. Several recent combat encounters with the Klingons and forces to the coreward have proved the vessel to be undergunned and unsuitable for combat.

Several attempts were made to up-gun the ship, with the last being the introduction of the Type 5, approximately Stardate 2/00. This version is reported to carry a small plasma weapon and improved impulse drive system. Even so, the V-2 did not prove popular, and has been replaced by the V-5 and V-6 cruisers.

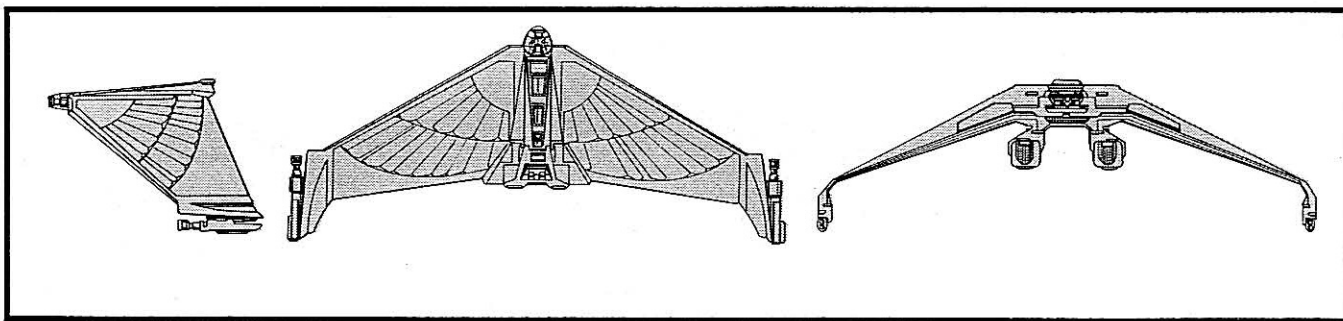
Of the approximately 70 Hunters built, about half are reported to be in reserve fleets and about 20 are reportedly working as research vessels for private firms. This vessel has not yet been scanned at close range, and plans given are highly speculative.

The ship is named from the Romulan *hathos* (hunter), likely in reference to its mission in the Exploration Division.





V-4 (Wing Of Vengeance) Class VI Cruiser



V-4 (Wing Of Vengeance) CLASS VI CRUISER

Construction Data:

Model Numbers —	Type 1	Type 2
Date Entering Service —	1/90	1/94
Approx. Number Constructed —	80	60

Hull Data:

Superstructure Points —	12	13
Damage Chart —	C	C
Size		
Length —	85 m	85 m
Width —	195 m	195 m
Height —	60 m	60 m
Weight —	65,600 mt	66,800 mt
Cargo		
Cargo Units —	80 SCU	80 SCU
Cargo Capacity —	4000 mt	4000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	R4M	R4M
Transporters —		
Standard 9-person	2	2
Emergency 20-person	2	2
Cargo	1	1

Other Data:

Crew —	160	160
Shuttlecraft —	2	2

Engines And Power Data:

Total Power Units Available —	32	35
Movement Point Ratio —	3/1	3/1
Warp Engine Type —	RWC-2	RWC-2
Number —	2	2
Power Units Available —	15	15
Stress Charts —	N/Q	N/Q
Maximum Safe Cruising Speed —	Warp 6	Warp 6
Emergency Speed —	Warp 7	Warp 7
Impulse Engine Type —	RIB-1	RIB-3
Power Units Available —	2	5
Weapons And Firing Data:		
Beam Weapon Type —	RB-4	RB-8
Number —	6	6
Firing Arcs —	2 p/a, 2 fwd, 2 s/a	2 p/a, 2 fwd, 2 s/a
Firing Chart —	J	N
Maximum Power —	6	6
Damage Modifiers —		
+3	(1 - 2)	(1 - 4)
+2	(3 - 6)	(5 - 9)
+1	(7 - 10)	(10 - 13)

Shields Data:

Deflector Shield Type —	RSG	RSJ
Shield Point Ratio —	1/1	1/1
Maximum Shield Power —	13	14

Combat Efficiency:

D-	50.7	55.1
WDF-	19.2	24.6

Notes:

Known Sphere Of Operation: Empire interior.

Data Reliability: D

Major Data Source: Klingon sector intelligence

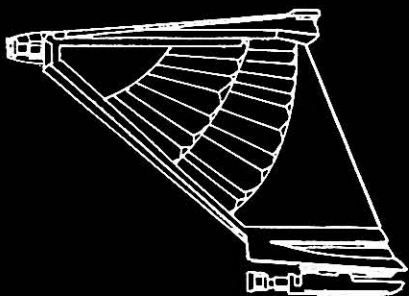
The V-4 class has, by far, the most unusual design to come from Romulan engineers; fashioned like a giant wing, it was created not only for aesthetics but for combat. When the vessels were first introduced, they were intended to lead an expansion effort, but the war between the Klingons and Federation caused them to be sent to patrol the Klingon border. The Type 2 mounted a more powerful impulse drive system and improved disruptors, which accounted for its greater combat efficiency.

The V-4s were painted by crewmembers in a variety of patterns. These ships, though popular with their crews, were removed from service sometime after Stardate 2/16 for more powerful designs. Of the approximately 135 built, about 65 are in reserve fleets. Six are reported to be used as training vessels, and two are used as spaceborn museums, one each stationed at Remus and at Corill. Eighteen are known to be operating in the civil sector.

On Stardate 1/9611, nine of these vessels are known to have been sent into the Triangle to liberate a small system from the Klingons. The Romulans pressed the attack against the three D-7s protecting the system, immediately destroying two and driving the other away. Flushed with victory, the Romulan commander sent five of his group after the fleeing enemy, but they encountered nine D-7s and three D-10s arriving to reinforce the area. The Romulans flew into a classic trap laid by the Klingon battlegroup, and three were destroyed before getting off one shot. The remaining Romulans miraculously crippled four of the Klingon vessels before one was crippled itself and the remaining vessel fled. The Klingons abandoned the effort and withdrew from the area.

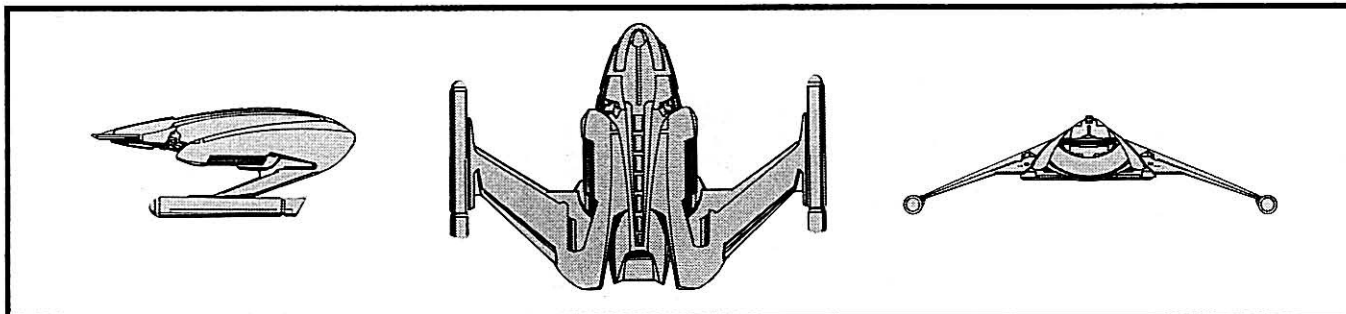
This battle caused a stir in the Klingon High Command, as the ship had never before been encountered. Because the stories told of its abilities were inflated to make the Klingon fleet commander look good, the V-4s enjoyed an undeserved notoriety amongst the Klingons for many years.

The class is named from the Romulan *vastam cl'vangas* (wing of vengeance), in reference to the vessel's combat capabilities.





V-5 (Skyfire) Class VII/VIII Cruiser



V-5 (Skyfire) CLASS VII/VIII CRUISER

Construction Data:		
Model Numbers —	Type 1	Type 2
Ship Class —	VII	VIII
Date Entering Service —	1/96	2/00
Approx. Number Constructed —	40	40
Hull Data:		
Superstructure Points —	17	18
Damage Chart —	B	B
Size		
Length —	160 m	160 m
Width —	233 m	233 m
Height —	60 m	60 m
Weight —	93,500 mt	114,300 mt
Cargo		
Cargo Units —	170 SCU	190 SCU
Cargo Capacity —	6500 mt	8500 mt
Landing Capability —	None	None
Equipment Data:		
Control Computer Type —	R4M	R4M
Transporters —		
Standard 9-person	3	3
Emergency 20-person	2	2
Cargo	1	1
Cloaking Device Type —	RCC	RCC
Power Requirement —	15	15
Other Data:		
Crew —	270	270
Shuttlecraft —	2	2
Engines And Power Data:		
Total Power Units Available —	35	38
Movement Point Ratio —	3/1	3/1
Warp Engine Type —	RWD-1	RWE-1
Number —	2	2
Power Units Available —	16	13
Stress Charts —	O/O	I/L
Maximum Safe Cruising Speed —	Warp 6	Warp 7
Emergency Speed —	Warp 7	Warp 8
Impulse Engine Type —	RIB-2	RID-3
Power Units Available —	3	12
Weapons And Firing Data:		
Beam Weapon Type —	RB-5	RB-5
Number —	4	4
Firing Arcs —	2 p/a, 2 s/a	2 p/a, 2 s/a
Firing Chart —	V	V
Maximum Power —	5	5
Damage Modifiers —		
+3	(1 - 10)	(1 - 10)
+2	(11 - 16)	(11 - 16)
+1	(17 - 21)	(17 - 21)
Beam Weapon Type —	RB-6	
Number —	2	
Firing Arcs —	fwd	
Firing Chart —	T	
Maximum Power —	6	
Damage Modifiers —	+2	(1 - 18)
Missile Weapon Type —	None	RPL-1
Number —		1
Firing Arcs —		fwd
Firing Chart —		E
Power To Arm —		10
Damage —		See Chart
Shields Data:		
Deflector Shield Type —	RSJ	RSJ
Shield Point Ratio —	1.1	1.1
Maximum Shield Power —	14	13
Combat Efficiency:		
D-	61.3	61.7
WDF-	43.8	28.4

Notes:

Known Sphere Of Operation:
Romulan interior

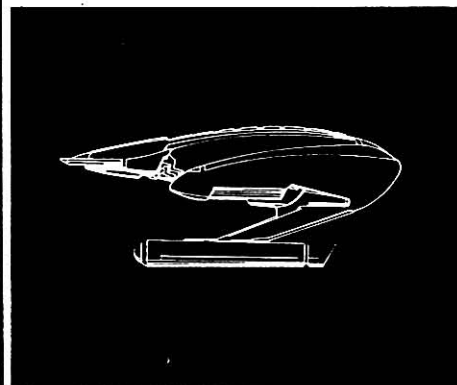
Data Reliability: D

Major Data Source: Project Grey
Ghost; Klingon Sector Intelligence

The V-5 Class, apparently brought into service to supplement the V-2 Class, combines the need for a military vessel with that of a research vessel. Though it reportedly is quite capable for combat roles in which the V-2 is a failure, it fills its research roles less well. The Type 1 mounted an impressive array of disruptors with very good fields of fire. The Type 2, introduced about Stardate 2/00, saw the removal of the forward firing disruptors in favor of a bow-mounted plasma weapon, but this version did not prove to be as combat-efficient as the earlier model and has not been reported in any great numbers.

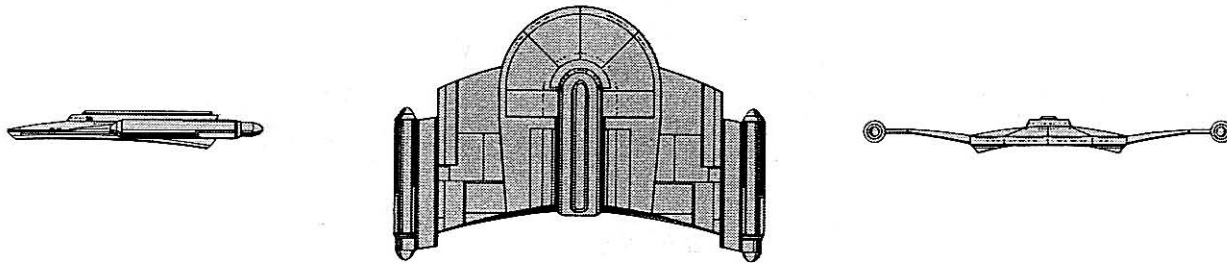
Of the approximately 80 built, about 50 are assigned to reserve fleets. Several are used as training vessels, and eight are reported to be in use as private research vessels or cruisers.

The class is named from the Romulan *ralaaram ocala* (fire from the sky), in reference to its military capabilities.





V-6 (Gallant Wing) Class X/XII Cruiser



V-6 (Gallant Wing) CLASS X/XII CRUISER

Construction Data:				
Model Numbers —	Type 1	Type 5	Type 7	
Ship Class —	X	X	XII	
Date Entering Service —	2/09	2/11	2/16	
Approx. Number Constructed —	30	50	20	
Hull Data:				
Superstructure Points —	20	22	26	
Damage Chart —	B	B	B	
Size				
Length —	172 m	172 m	172 m	
Width —	250 m	252 m	252 m	
Height —	47 m	48 m	48 m	
Weight —	140,500 mt	144,000 mt	190,000 mt	
Cargo				
Cargo Units —	250 SCU	250 SCU	250 SCU	
Cargo Capacity —	12,500 mt	12,500 mt	12,500 mt	
Landing Capability —	None	None	None	
Equipment Data:				
Control Computer Type —	R5M	R5M	R5M	
Transporters —				
Standard 9-person	4	4	4	
Emergency 20-person	2	2	2	
Cargo	2	2	2	
Cloaking Device Type —	RCD	RCD	RCE	
Power Requirement —	22	22	38	
Other Data:				
Crew —	300	300	300	
Shuttlecraft —	2	2	4	
Engines And Power Data:				
Total Power Units Available —	40	40	52	
Movement Point Ratio —	4/1	4/1	4/1	
Warp Engine Type —	RWF-1	RWF-1	RWG-1	
Number —	2	2	2	
Power Units Available —	18	18	24	
Stress Charts —	G/L	G/L	G/L	
Maximum Safe Cruising Speed —	Warp 7	Warp 7	Warp 7	
Emergency Speed —	Warp 9	Warp 9	Warp 9	
Impulse Engine Type —	RID-1	RID-1	RID-1	
Power Units Available —	4	4	4	
Weapons And Firing Data:				
Beam Weapon Type —	RB-6	RB-9	RB-9	
Number —	6, in 3 banks of 2	6, in 3 banks of 2	6, in 3 banks of 2	
Firing Arcs —	2 p/f, 2 fwd, 2 f/s	2 p/f, 2 fwd, 2 f/s	2 p/f, 2 fwd, 2 f/s	
Firing Chart —	T	W	W	
Maximum Power —	5	6	6	
Damage Modifiers —				
+3	—	(1 – 8)	(1 – 8)	
+2	(1 – 18)	(9 – 16)	(9 – 16)	
+1	—	(17 – 20)	(17 – 20)	
Plasma Weapon Type —	RPL-2	RPL-2	RPL-2	
Number —	1	1	1	
Firing Arcs —	fwd	fwd	fwd	
Firing Chart —	M	M	M	
Power To Arm —	15	15	15	
Damage —	See Chart	See Chart	See Chart	
Shields Data:				
Deflector Shield Type —	RSN	RSO	RSO	
Shield Point Ratio —	1/2	1/3	1/3	
Maximum Shield Power —	15	15	15	
Combat Efficiency:				
D- —	78.6	96.0	113.7	
WDF- —	62.8	75.4	75.4	

Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: A

Major Data Source: Combat reports

The V-6 Class was considered to be the ultimate replacement to fill the need for both a military vessel and a research vessel. Designed much like Star Fleet research cruisers, they are well-equipped for research duties for combat.

At the time of their introduction about Stardate 2/09, they were the most powerful ships in the fleet. The Type 1 mounted six of the most powerful disruptors available and the RPL-2 plasma weapon. Although these vessels never saw combat with any Federation ships, it is speculated that this model would have been an even match for a *Constitution* Class cruiser.

With the Type 5, introduced about Stardate 2/11, the combat efficiency improved because its more powerful disruptors, more efficient shields, and stronger superstructure. At this time, all Type 1s were recalled for refitting to the new configuration, and, by Stardate 2/13, this process had been completed. The Type 5 remained in service until about Stardate 2/22, when all had been converted to the Type 7.

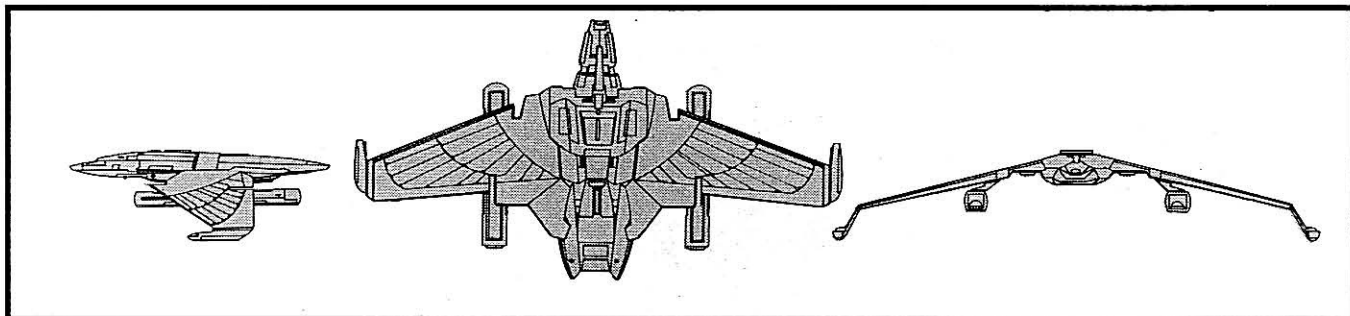
The Type 7, introduced on Stardate 2/1607, mounted improved engines and was structurally improved. Vessels of this type are expected to remain a mainstay of the active Navy.

Of the approximately 100 V-6s built, nearly all remain in active service. One operates as a private research vessel, appearing infrequently in the Triangle.

The class is named from the Romulan *s'ten vastam* (gallant wing).



V-7 (Whitewind) Class IX/X Cruiser



V-7 (Whitewind) CLASS IX/X CRUISER

Construction Data:

Model Numbers —	Type 1	Type 3
Ship Class —	IX	X
Date Entering Service —	2/12	2/17
Approx. Number Constructed —	60	28

Hull Data:

Superstructure Points —	18	18
Damage Chart —	B	B
Size		
Length —	140 m	140 m
Width —	260 m	260 m
Height —	48 m	48 m
Weight —	139,500 mt	144,400 mt
Cargo		
Cargo Units —	320 SCU	320 SCU
Cargo Capacity —	16,000 mt	16,000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	R4M	R6M
Transporters —		
Standard 9-person	4	4
Emergency 20-person	4	4
Cargo	2	2
Cloaking Device Type —	RCC	RCD
Power Requirement —	15	22

Other Data:

Crew —	320	322
Shuttlecraft —	6	6

Engines And Power Data:

Total Power Units Available —	44	44
Movement Point Ratio —	4/1	4/1
Warp Engine Type —	RWF-1	RWF-1
Number —	2	2
Power Units Available —	18	18
Stress Charts —	G/L	G/L
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 9	Warp 9
Impulse Engine Type —	RID-2	RID-2
Power Units Available —	8	8

Weapons And Firing Data:

Beam Weapon Type —	RB-5	RB-5
Number —	4, in 2 banks of 2	4, in 2 banks of 2
Firing Arcs —	2 p/f, 2 f/s	2 p/f, 2 f/s
Firing Chart —	V	V
Maximum Power —	5	5
Damage Modifiers —		
+3	(1 – 10)	(1 – 10)
+2	(11 – 16)	(11 – 16)
+1	(17 – 21)	(17 – 21)
Beam Weapon Type —	RB-9	RB-9
Number —	2, in a bank	2, in a bank
Firing Arcs —	—	—
Firing Chart —	—	—
Maximum Power —	—	—
Damage Modifiers —	—	—
+3	—	(1 – 8)
+2	—	(8 – 16)
+1	—	(17 – 20)
Missile Weapon Type —	None	RP-2
Number —	—	3
Firing Arcs —	—	2 fwd, 1 aft
Firing Chart —	—	H
Power To Arm —	—	1
Damage —	—	8
Plasma Weapon Type —	RPL-2	None
Number —	1	—
Firing Arcs —	fwd	—
Firing Chart —	M	—
Power To Arm —	15	—
Damage —	See Chart	—

Shields Data:

Deflector Shield Type —	RSK	RSL
Shield Point Ratio —	1/2	1/3
Maximum Shield Power —	13	14

Combat Efficiency: D/WDF-	79.6/45.0	88.5/49.8
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Notes:

Known Sphere Of Operation: Klingon borders

Data Reliability: C

Major Data Source: Project Grey Ghost

Like their counterparts in the V-6 Class, the V-7s were designed for multiple roles, with spacious interiors and complete onboard research facilities.

The Type 1 entered service about Stardate 2/12 and is still being produced as a support ship, even though it is not as efficient in combat as later models. Mounting the RPL-2 plasma weapon and a cloaking device, the Type 1 is capable of operating alone.

The Type 3, introduced about Stardate 2/17, is the preferred model of the class. It mounts two additional disruptors and three photon torpedoes, and it has more efficient shields.

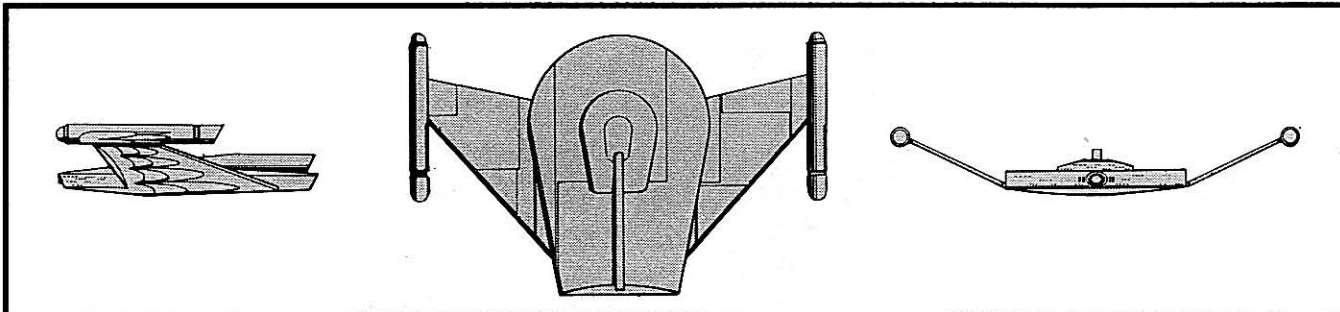
Of the approximately 80 V-7s built, nearly all remain in active service. Current production of the Whitewind is estimated at six per year.

The aft weaponry of the V-7s has set the standard for the Romulan Navy, as exemplified by this Project Grey Ghost report of an incident between two V-7s and two Klingon L-9 Class frigates. The V-7s, investigating asteroid clusters, detected the Klingons as they approached. Both V-7s cloaked and deployed. As the unsuspecting Klingons began surveying the asteroids, the V-7s decloaked and opened fire, only to have the Klingons disappear from view and sensor, obviously taking advantage of cloaking capabilities acquired in the technological exchange. In the waiting game that followed, all four ships remained cloaked and invisible to sensors for several hours. Finally, one of the Klingon commanders became impatient and attempted to warp away from the area. Unfortunately, his path of departure resulted in a collision and catastrophic explosion. The remaining ships immediately decloaked, only to find themselves lying aft to aft, which put the Klingon at a disadvantage because of its lack of torpedoes to the rear. It suffered serious damage and surrendered to the Romulan commander, who allowed the Klingon to leave after surrendering the cloaking device.

The class is named for a meteorological disturbance peculiar to Remus. As described in *The Eridam Papers*, twice per Remus year, a hot wind blows across the northern hemisphere for as long as five days. Mineral particles from the western cliffs are borne aloft by the winds, and, at night, their phosphorescence causes the hemisphere-wide nightglow that gives the weather phenomenon its name *aye mosaram* (white wind).



V-8 (Bird Of Prey) Class VI Cruiser



V-8 (Bird Of Prey) CLASS VI CRUISER

Construction Data:

Model Numbers—	Type 1	Type 4
Date Entering Service—	2/00	2/08
Approx. Number Constructed—	21	73

Hull Data:

Superstructure Points—	15	15
Damage Chart—	B	B
Size		
Length—	136 m	136 m
Width—	199 m	199 m
Height—	47 m	47 m
Weight—	67,100 mt	68,000 mt
Cargo		
Cargo Units—	48 SCU	48 SCU
Cargo Capacity—	2400 mt	2400 mt
Landing Capability—	None	None

Equipment Data:

Control Computer Type—	R4M	R4M
Transporters—		
Standard 9-person	1	1
Emergency 20-person	1	1
Cargo	1	1
Cloaking Device Type—	RCC	RCC
Power Requirement—	15	15

Other Data:

Crew—	150	150
Shuttlecraft—	None	None

Engines And Power Data:

Total Power Units Available—	26	28
Movement Point Ratio—	3/1	3/1
Warp Engine Type—	RWC-1	RWC-1
Number—	2	2
Power Units Available—	12	12
Stress Charts—	M/P	M/P
Maximum Safe Cruising Speed—	Warp 4	Warp 4
Emergency Speed—	Warp 6	Warp 6
Impulse Engine Type—	RIB-1	RIC-2
Power Units Available—	2	4

Weapons And Firing Data:

Beam Weapon Type—	RB-4	RB-6
Number—	1	2
Firing Arcs—	port/fwd/stbd	port/fwd/stbd
Firing Chart—	J	T
Maximum Power—	6	6
Damage Modifiers—		
+3	(1 - 2)	—
+2	(3 - 6)	(1 - 18)
+1	(7 - 10)	—
Plasma Weapon Type—	RPL-2	RPL-2
Number—	1	1
Firing Arcs—	fwd	fwd
Firing Chart—	M	M
Power To Arm—	15	15
Damage—	See Chart	See Chart

Shields Data:

Deflector Shield Type—	RSE	RSH
Shield Point Ratio—	1/2	1/2
Maximum Shield Power—	8	11

Combat Efficiency:

D-	57.5	63.5
WDF-	21.4	32.0

Notes:

Known Sphere Of Operation: Triangle; Romulan interior

Data Reliability: A

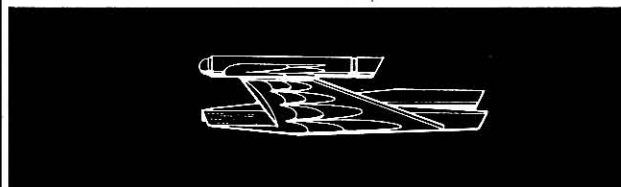
Major Data Source: Combat reports; Triangle Sector Intelligence

On Stardate 2/0710, a V-8 was encountered by a Star Fleet cruiser patrolling the Neutral Zone, the first such contact in over 100 years and the very first visual contact with a Romulan war vessel. The incursion into Federation space obviously was intended to test UFP defenses, and the V-8 destroyed several listening posts and bases before being heavily damaged by the Federation vessel and self-destructing to avoid capture. Because of this incident, and because these ships were encountered in increasing numbers afterward, this vessel, more than any other, has been identified with Romulan military actions. For many years, these vessels were believed to be the mainstay of the Romulan fleet, but improved intelligence reveals that this was a misconception.

The vessel was designed to carry the RPL-2 plasma weapon; because of its size and bulk, the Type 1 ships, 136 meters long, actually were built around the 110-foot-long weapon. The other major feature of the Type 1 was the use of new shielding technology. The Type 4, with upgraded disruptors, was introduced to overcome the inadequate firepower of earlier models.

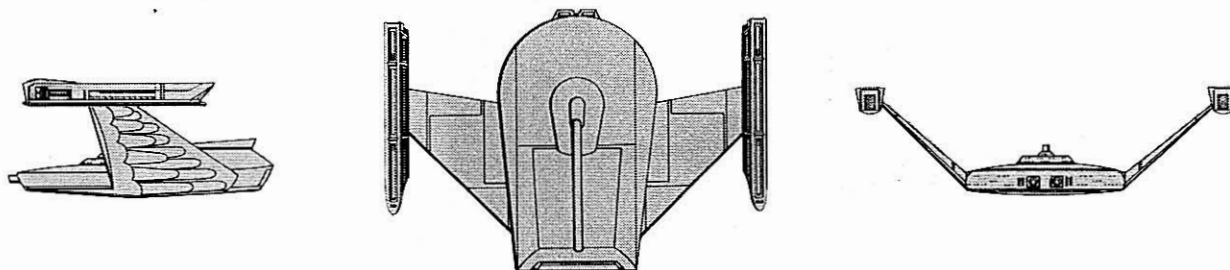
Of the approximately 100 ships built, about 40 are assigned to reserve fleets. Six have been modified and sold to the civil sector, including two Type 1s, one each of Type 2 and Type 3, and two Type 4s, all of which operate in and out of the Triangle.

The class is named for the Romulan *vas hatham* (bird of prey), in reference to a huge, flying predator, reportedly native to Romulus, but so revered that they have been transplanted to several of the conquered worlds in the empire. Living for nearly 100 years, these avians can reach nearly giant proportions, some having wingspans as wide as 50 feet and weighing as much as 400 pounds.





V-9 (Night Flyer) Class VI Cruiser



V-9 (Night Flyer) CLASS VI CRUISER

Construction Data:

Model Numbers —	Type 1	Type 6
Date Entering Service —	2/08	2/15
Approx. Number Constructed —	110	70

Hull Data:

Superstructure Points —	15	16
Damage Chart —	B	B
Size		
Length —	136 m	136 m
Width —	190 m	190 m
Height —	57 m	57 m
Weight —	69,400 mt	70,900 mt
Cargo		
Cargo Units —	80 SCU	80 SCU
Cargo Capacity —	4000 mt	4000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	R4M	R4M
Transporters		
Standard 9-person	3	3
Emergency 20-person	2	2
Cargo	1	1
Cloaking Device Type —	RCC	RCC
Power Requirement —	15	15

Other Data:

Crew —	162	162
Shuttlecraft —	2	2

Engines And Power Data:

Total Power Units Available —	28	34
Movement Point Ratio —	3/1	3/1
Warp Engine Type —	RWC-1	RWC-2
Number —	2	2
Power Units Available —	12	15
Stress Charts —	M/P	N/Q
Maximum Safe Cruising Speed —	Warp 4	Warp 6
Emergency Speed —	Warp 6	Warp 7
Impulse Engine Type —	RIC-2	RIC-2
Power Units Available —	4	4

Weapons And Firing Data:

Beam Weapon Type —	RB-6	RB-6
Number —	4, in 2 banks of 2	4, in 2 banks of 2
Firing Arcs —	2 p/f's, 2 aft	2 p/f's, 2 aft
Firing Chart —	T	T
Maximum Power —	6	6
Damage Modifiers —		
+2	(1 - 18)	(1 - 18)
Plasma Weapon Type —	RPL-1	RPL-1
Number —	2	2
Firing Arcs —	F	F
Firing Chart —	E	E
Power To Arm —	10	10
Damage —	See Chart	See Chart

Shields Data:

Deflector Shield Type —	RSH	RSH
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	11	11

Combat Efficiency:

D-	63.5	70.4
WDF-	42.4	42.4

Notes:

Known Sphere Of Operation: Federation borders

Data Reliability: C

Major Data Source: Triangle Sector Intelligence

The V-9 Class, created from plans for the older V-8 (Bird Of Prey) Class, was constructed in response to the need for increased firepower and speed. Its similarity to the V-8 on casual inspection is responsible for the prolonged myth that the V-8 was the mainstay of the Romulan Navy.

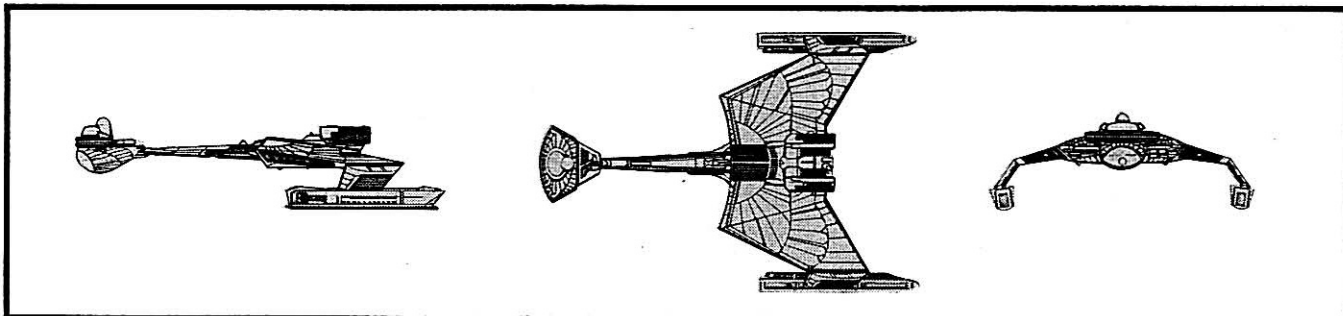
The Type 1 was introduced about Stardate 2/0805. It was the first vessel in the Romulan fleet to carry two plasma weapons, and it had an impressive array of disruptors and a cloaking device. This vessel reportedly became extremely popular with front line commanders, because of its ability to deliver multiple plasma weapon strikes. It did not, however, address the speed problem still seen in the concurrent Type 4 V-8, and several power plant changes resulted in the successful Type 6.

Of the approximately 180 V-9s constructed, about 160 remain in active service; of these, some are known to be assigned to Romulan Intelligence as training vessels. There are reports of these vessels operating within the Triangle.

The class is named from the Romulan *temar vastaram* (night flyer), in reference to a small, nocturnal, flying predator native to Remus. *The Eridam Papers* state that they were the source of many ancient legends and myths about invisible predators from another dimension.



V-11 (Stormbird) Class VII/X Cruiser



V-11 (Stormbird) CLASS VII/X CRUISER

Construction Data:	Type 1	Type 2	Type 5
Model Numbers —	VII	IX	X
Ship Class —	2/09	2/12	2/17
Date Entering Service —	80	40	50
Approx. Number Constructed —			
Hull Data:			
Superstructure Points —	20	20	21
Damage Chart —	C	C	C
Size			
Length —	216 m	220 m	221 m
Width —	152 m	152 m	156 m
Height —	55 m	55 m	57 m
Weight —	96,600 mt	136,300 mt	141,200 mt
Cargo			
Cargo Units —	120 SCU	120 SCU	120 SCU
Cargo Capacity —	6000 mt	6000 mt	6000 mt
Landing Capability —	None	None	None
Equipment Data:			
Control Computer Type —	R4M	R4M	R5M
Transporters —			
Standard 9-person	3	3	3
Emergency 18-person	1	1	1
Combat 22-person	5	5	5
Cargo	2	2	2
Cloaking Device Type —	RCC	RCC	RCD
Power Requirement —	15	15	22
Other Data:			
Crew —	350	355	350
Troops —	220	220	220
Shuttlecraft —	5	5	5
Engines And Power Data:			
Total Power Units Available —	40	41	44
Movement Point Ratio —	4/1	4/1	4/1
Warp Engine Type —	KWD-1	RWF-1	RWF-1
Number —	2	2	2
Power Units Available —	18	16	18
Stress Charts —	L/N	O/O	G/L
Maximum Safe Cruising Speed —	Warp 6	Warp 7	Warp 7
Emergency Speed —	Warp 8	Warp 9	Warp 9
Impulse Engine Type —	KIC-2	RIC-2	RID-1
Power Units Available —	4	5	8
Weapons And Firing Data:			
Beam Weapon Type —	RB-6	RB-6	RB-10
Number —	4	4	4
Firing Arcs —	2 p.f, 2 f.s	2 p.f, 2 f.s	2 p.f, 2 f.s
Firing Chart —	T	T	U
Maximum Power —	6	6	8
Damage Modifiers —			
+3	—	—	(1 – 8)
+2	(1 – 18)	(1 – 18)	(9 – 16)
+1	—	—	(17 – 20)
Missile Weapon Type —	None	None	RP-3
Number —	—	—	2
Firing Arcs —	—	—	1 fwd, 1 aft
Firing Chart —	—	—	Q
Power To Arm —	—	—	1
Damage —	—	—	10
Plasma Weapon Type —	None	RPL-1	None
Number —	—	1	—
Firing Arcs —	—	fwd	—
Firing Chart —	—	E	—
Power To Arm —	—	10	—
Damage —	—	See Chart	—
Shields Data:			
Deflector Shield Type —	RSG	RSK	RSI
Shield Point Ratio —	1:1	1:2	1:3
Maximum Shield Power —	11	13	11
Combat Efficiency:			
D- —	58.6	76.6	93.0
WDF- —	30.8	36.6	58.2

Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: A

Major Data Source: Klingon version in Star Fleet possession; Klingon Sector Intelligence

Because of the Romulan-Klingon technological exchange treaties, the Klingons agreed to exchange their D-7A Class cruisers for Romulan plasma weapons and several old-style cloaking devices. These vessels, delivered Stardate 2/09, 2/12, and 2/17 became the V-11 Class.

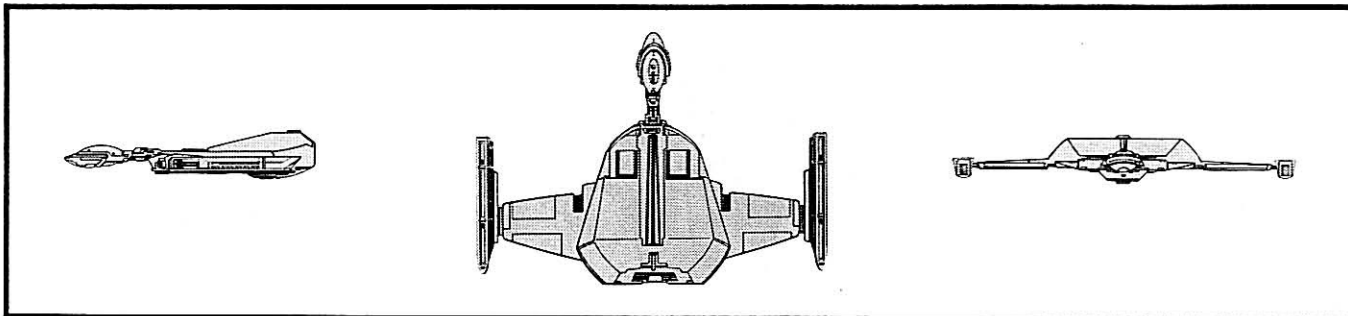
The 80 vessels in the initial shipment were stripped of their weapons, but the Klingon engines were retained to form the Type 1. The 42 in the second shipment were delivered without engines, shields, or weapons; these were fitted as the Type 2 with a plasma weapon and more efficient shielding. The 50 vessels in the final shipment also were delivered completely stripped, and these were fitted as the Type 5, with fore- and aft-mounted photon torpedoes reminiscent of the Klingon D-7M Class. Types 3 and 4 are modified Type 1s.

Although 172 of these ships have entered Romulan service, they are not liked by their commanders or crews, many of whom consider them to be enemy vessels. In recent years, the Romulans have begun deploying many of the approximately 160 remaining in active service along the Klingon borders in direct violation of the signed accords.

The class is named for the *vas'kalabam* (bird of storms), a small, flying predator of Remus. These nocturnal avians are often seen gliding on the rising winds before a storm and it is said they are capable of travelling hundreds of miles in the vanguard of a storm.



V-20 (Star Seeker) Class VII Cruiser



V-20 (Star Seeker) CLASS VII CRUISER

Construction Data:		
Model Numbers —	Type 1	Type 2
Date Entering Service —	2/17	2/19
Approx. Number Constructed —	40	25
Hull Data:		
Superstructure Points —	16	17
Damage Chart —	C	C
Size		
Length —	110 m	112 m
Width —	161 m	161 m
Height —	21 m	21 m
Weight —	91,500 mt	93,400 mt
Cargo		
Cargo Units —	150 SCU	150 SCU
Cargo Capacity —	7500 mt	7500 mt
Landing Capability —	None	None
Equipment Data:		
Control Computer Type —	R4M	R4M
Transporters —		
Standard 9-person	2	2
Emergency 20-person	2	2
Cargo	1	1
Cloaking Device Type —	RCC	RCC
Power Requirement —	15	15
Other Data:		
Crew —	205	205
Shuttlecraft —	2	2
Engines And Power Data:		
Total Power Units Available —	42	42
Movement Point Ratio —	3/1	3/1
Warp Engine Type —	RWD-1	RWD-1
Number —	2	2
Power Units Available —	16	16
Stress Charts —	O/O	O/O
Maximum Safe Cruising Speed —	Warp 6	Warp 6
Emergency Speed —	Warp 7	Warp 7
Impulse Engine Type —	RIE-1	RIE-1
Power Units Available —	10	10
Weapons And Firing Data:		
Beam Weapon Type —	RB-10	RB-10
Number —	4, in 2 banks of 2	4, in 2 banks of 2
Firing Arcs —	2 f/p, 2 f/s	2 f/p, 2 f/s
Firing Chart —	U	U
Maximum Power —	8	8
Damage Modifiers —		
+3	(1 – 8)	(1 – 8)
+2	(9 – 16)	(9 – 16)
+1	(17 – 20)	(17 – 20)
Missile Weapon Type —	None	RP-2
Number —	—	3
Firing Arcs —	—	2 fwd, 1 aft
Firing Chart —	—	H
Power To Arm —	—	1
Damage —	—	8
Plasma Weapon Type —	RPL-2	None
Number —	1	—
Firing Arcs —	fwd	—
Firing Chart —	M	—
Power To Arm —	15	—
Damage —	See Chart	—
Shields Data:		
Deflector Shield Type —	RSH	RSK
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	10	14
Combat Efficiency:		
D- —	76.9	84.3
WDF- —	58.2	52.4

Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: D

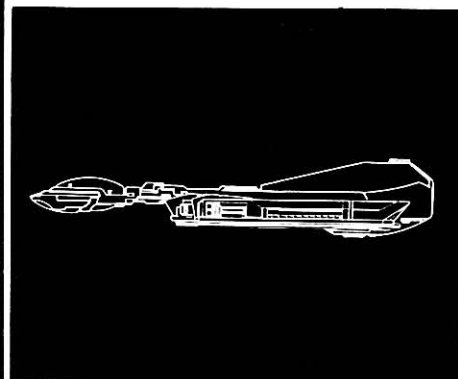
Major Data Source: Project Grey Ghost

The V-20 Type 1 was introduced about Stardate 2/18, with the Type 2 brought into service about a year later. The differences between the two are in the missile weapon types and the shields, as well as in the superstructure strength.

The vessel is reputed to be roomy, by Romulan standards. Because the interior of the ship is compartmented for combat, the vessel's survivability is much greater in case of a hull rupture or interior fires.

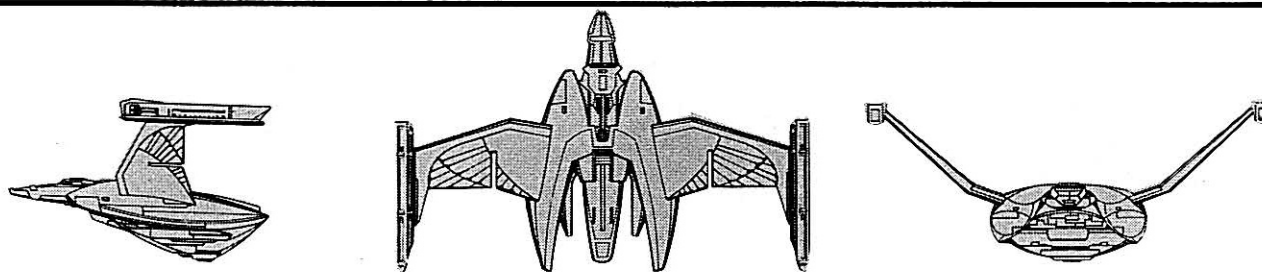
All of the approximately 70 vessels built are in active service. Reports reveal that ten of both types are being manufactured per year, which recent rapid build-up has alarmed both the Klingons and UFP.

The class is named from the Romulan *galan stelri* (seeker of stars), in reference to its mission in the Exploration Division.





V-27 (Comet Of Destruction) Class XII Cruiser



V-27 (Comet Of Destruction) CLASS XII CRUISER

Construction Data:		
Model Numbers —	Type 1	Type 2
Date Entering Service —	2/16	2/18
Approx. Number Constructed —	30	20
Hull Data:		
Superstructure Points —	25	26
Damage Chart —	C	C
Size		
Length —	190 m	190 m
Width —	305 m	305 m
Height —	120 m	120 m
Weight —	188,700 mt	193,400 mt
Cargo		
Cargo Units —	440 SCU	440 SCU
Cargo Capacity —	22,000 mt	22,000 mt
Landing Capability —	None	None
Equipment Data:		
Control Computer Type —	R5M	R6M
Transporters —		
Standard 9-person	4	4
Emergency 20-person	4	4
Cargo	2	2
Cloaking Device Type —		
Power Requirement —	RCE	RCE
	38	38
Other Data:		
Crew —	420	420
Shuttlecraft —	6	6
Engines And Power Data:		
Total Power Units Available —	52	52
Movement Point Ratio —	4/1	4/1
Warp Engine Type —		
Number —	RWG-1	RWG-1
Power Units Available —	2	2
Stress Charts —	24	24
Maximum Safe Cruising Speed —	G/L	G/L
Emergency Speed —	Warp 7	Warp 7
Impulse Engine Type —	Warp 9	Warp 9
Power Units Available —	RID-1	RID-1
	4	4
Weapons And Firing Data:		
Beam Weapon Type —		
Number —	RB-10	RB-11
Firing Arcs —	4, in 2 banks of 2	4, in 2 banks of 2
Firing Chart —	2 p.f, 2 f/s	2 p.f, 2 f/s
Maximum Power —	U	V
Damage Modifiers —	8	9
+3	(1 - 8)	(1 - 10)
+2	(8 - 16)	(11 - 16)
+1	(17 - 20)	(17 - 21)
Beam Weapon Type —		
Number —	RB-6	RB-6
Firing Arcs —	2, in a bank	2, in a bank
Firing Chart —	aft	aft
Maximum Power —	T	T
Damage Modifiers — +2	6	6
Missile Weapon Type —	(1 - 18)	(1 - 18)
Number —	RP-2	RP-3
Firing Arcs —	2	2
Firing Chart —	1 fwd, 1 aft	1 fwd, 1 aft
Power To Arm —	H	Q
Damage —	1	1
	8	10
Shields Data:		
Deflector Shield Type —	RSN	RSN
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	15	15
Combat Efficiency:		
D-	93.8	95.2
WDF-	64.2	79.6

Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: C

Major Data Source: Combat reports; Romulan Sector Intelligence

The V-27 Class, like the V-30 Class, its counterpart, was designed to provide flagships for the Romulan Navy that would keep parity with new Klingon and Star Fleet vessels. These vessels are very seldom seen operating alone outside a fleet and will always be found with a destroyer escort group accompanying them.

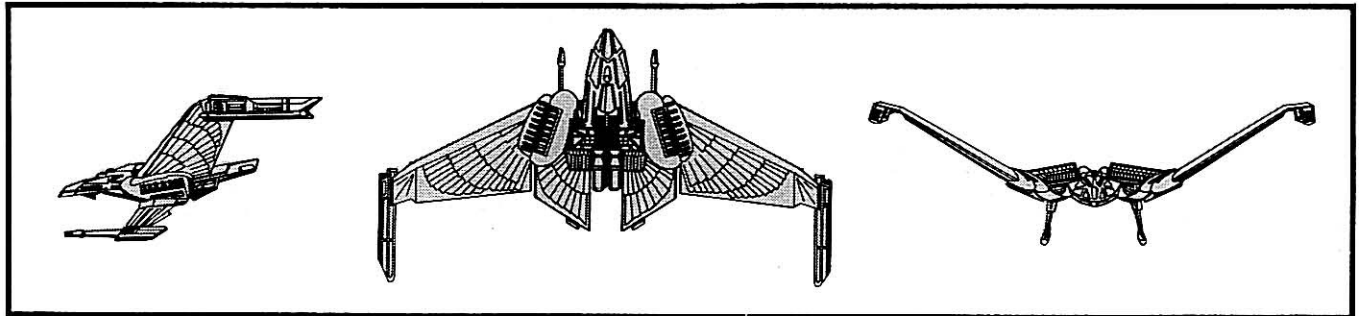
Introduced about Stardate 2/16, the Type 1 is mounted with photon torpedoes both fore and aft and the newest high-powered disruptors. The Comet saw combat early in its career and proved itself to be a formidable opponent. The Type 2, introduced about Stardate 2/18, mounted improved photon weaponry and disruptors.

Of the approximately 50 V-27s built, all are in active service. These ships are being produced at a rate of about ten per year, a number that has alarmed both the Klingons and UFP commands because the balance of power could easily be swayed with the introduction of large numbers of a ship of this power.

The class is named from the Romulan *takara morlatta* (comet of destruction), in reference to a comet that formerly traveled through the Romulan home system on a 40-year cycle. According to *The Eridam Papers*, this comet was seen by early Romulans as a bearer of death and destruction. It was destroyed by the Romulan navy shortly after inter-planetary travel was established.



V-30 (Winged Defender) Class XII Cruiser



V-30 (Winged Defender) CLASS XII CRUISER

Construction Data:		
Model Numbers —	Type 1	Type 2
Date Entering Service —	2/17	2/19
Approx. Number Constructed —	20	15
Hull Data:		
Superstructure Points —	30	31
Damage Chart —	C	C
Size		
Length —	187 m	187 m
Width —	293 m	293 m
Height —	94 m	94 m
Weight —	200,100 mt	202,200 mt
Cargo		
Cargo Units —	40 SCU	40 SCU
Cargo Capacity —	2000 mt	2000 mt
Landing Capability —	None	None
Equipment Data:		
Control Computer Type —	R6M	R6M
Transporters —		
Standard 9-person	4	4
Emergency 20-person	2	2
Cargo	1	1
Cloaking Device Type —	RCE	RCE
Power Requirement —	38	38
Other Data:		
Crew —	350	348
Shuttlecraft —	2	2
Engines And Power Data:		
Total Power Units Available —	68	68
Movement Point Ratio —	4/1	4/1
Warp Engine Type —	RWG-1	RWG-1
Number —	2	2
Power Units Available —	24	24
Stress Charts —	G/L	G/L
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 9	Warp 9
Impulse Engine Type —	RIE-3	RIE-3
Power Units Available —	20	20
Weapons And Firing Data:		
Beam Weapon Type —	RB-9	RB-9
Number —	8	8
Firing Arcs —	4 fwd, 1 p, 1 s, 1 p/a, 1 s/a	4 fwd, 1 p, 1 s, 1 p/a, 1 s/a
Firing Chart —	W	W
Maximum Power —	6	6
Damage Modifiers —		
+3	(1 - 8)	(1 - 8)
+2	(9 - 16)	(9 - 16)
+1	(17 - 20)	(17 - 20)
Missile Weapon Type —	None	RP-3
Number —	None	3
Firing Arcs —	None	2 fwd, 1 aft
Firing Chart —	None	Q
Power To Arm —	None	1
Damage —	None	10
Plasma Weapon Type —	RPL-3	None
Number —	1	None
Firing Arcs —	fwd	None
Firing Chart —	T	None
Power To Arm —	8	None
Damage —	See Chart	None
Shields Data:		
Deflector Shield Type —	RSL	RSL
Shield Point Ratio —	1/3	1/3
Maximum Shield Power —	13	13
Combat Efficiency:		
D- 129.8		131.3
WDF- 98.9		103.3

Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: A

Major Data Source: Romulan Sector Intelligence; Project Grey Ghost

The V-30 is the most powerful of all Romulan warships. Exemplifying the new-style design, the cruiser looks like a bird and has variable wing positions.

Introduced about Stardate 2/17, the Type 1 mounts eight disruptors arranged to give covering fire in all directions. The newest plasma weapon, the RPL-3, coupled with the cloaking device, allows the V-30 to use standard Romulan tactics and deliver a devastating first strike. The Type 2, introduced about Stardate 2/19, mounts the new RP-3 photon torpedoes both fore and aft.

V-30s are used as flagships or focal points of a fleet, several of which have three or four of these vessels assigned to them. The V-30 is being deployed along the Neutral Zone and areas bordering the Triangle as a deterrent to possible incursions into Empire space. Furthermore, these ships have been used recently for 'shadowing' missions along the Neutral Zone, following a course parallel to and just outside sensors range of any Federation ships that approach the Zone. This has made exact identification of the vessel impossible, and has added to the confusion concerning the exact disposition of these cruisers.

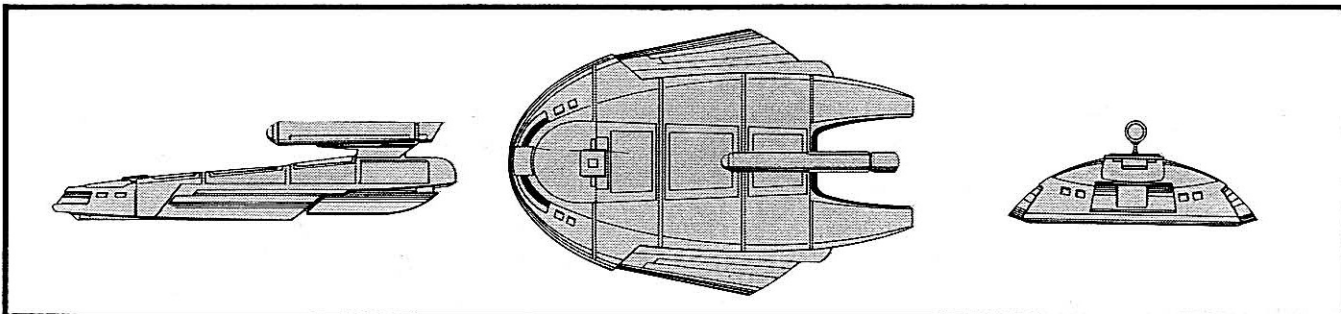
These cruisers, like the V-27s, never operate alone. On every occasion monitored, the V-30 has had an escort of destroyers and/or other cruisers. Although there are no recorded incidents of combat between these ships and Federation vessels, most experts agree that an encounter between a V-30 and an *Enterprise* Class cruiser would be a fairly even match of firepower. Unsubstantiated reports of Klingon encounters with these vessels have been received, with the V-30s reportedly being victorious in all cases.

Of the approximately 35 built, all remain on active duty assigned to border areas. Current intelligence reports show that as many as seven Winged Defenders are being added per year.

The class is named from the Romulan *vas'de-letham* (winged defender), in reference to a small, flying creature native to Remus. These small birds have been known to fight to the death to defend their nest, driving away even full-grown Romulans.



P-2 (Ranajmar) Class II Cutter



P-2 (Ranajmar) CLASS II CUTTER

Construction Data:

Model Numbers —	Type 1	Type 4
Date Entering Service —	1/92	2/01
Approx. Number Constructed —	500	950

Hull Data:

Superstructure Points —	3	4
Damage Chart —	C	C
Size		
Length —	47 m	47 m
Width —	30 m	30 m
Height —	12 m	12 m
Weight —	8,300 mt	15,000 mt

Cargo

Cargo Units —	10 SCU	10 SCU
Cargo Capacity —	500 mt	500 mt
Landing Capability —	Yes	Yes

Equipment Data:

Control Computer Type —	R2M	R2M
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Other Data:

Crew —	16	16
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Engines And Power Data:

Total Power Units Available —	8	13
Movement Point Ratio —	1/2	1/1
Warp Engine Type —	RWA-1	RWB-1
Number —	1	1
Power Units Available —	6	10
Stress Charts —	K/M	K/O
Maximum Safe Cruising Speed —	Warp 7	Warp 6
Emergency Speed —	Warp 8	Warp 7
Impulse Engine Type —	RIA-2	RIA-3
Power Units Available —	2	3

Weapons And Firing Data:

Beam Weapon Type —	RB-2	RB-2a
Number —	2	2
Firing Arcs —	1 f/p/a, 1 f/s/a	1 f/p/a, 1 f/s/a
Firing Chart —	K	K
Maximum Power —	2	3
Damage Modifiers —	none	—
+3	—	(1-4)
+2	—	(5-9)
+1	—	(10-14)

Shields Data:

Deflector Shield Type —	RSA	RSC
Shield Point Ratio —	1/1	1/2
Maximum Shield Power —	5	10

Combat Efficiency:

D-	34.3	55.7
WDF-	1.6	4.2

Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: B

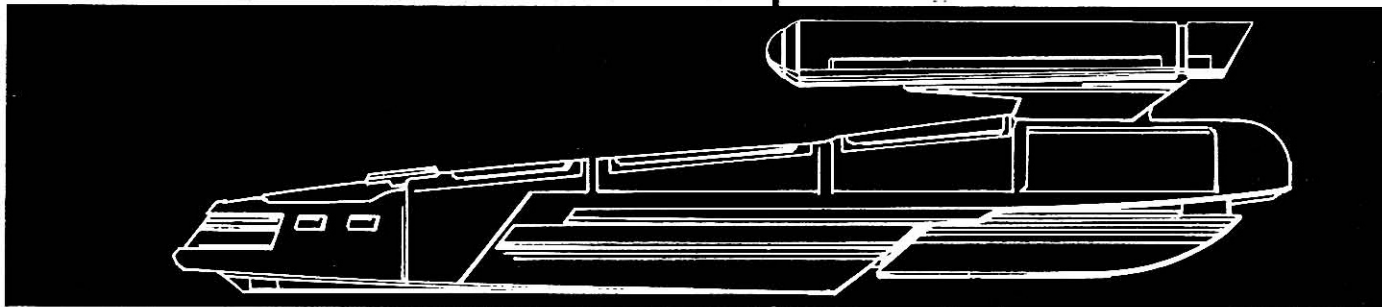
Major Data Source: Triangle sector intelligence

Common to the Romulan borders, P-2s also may be found in planetary systems where Romulan law is not fully established. Usually assigned in groups of three to five, these cutters are quite capable of handling civil vessels.

Type 1 is known to have entered service just prior to the outbreak of the Four Years War between the Klingons and the Federation; used to defend newly-acquired areas along the Triangle, it was reported to be underpowered and undergunned to handle its mission. Types 2 and 3 had slight interior and cosmetic changes, but they did not really address the issue of mission suitability and represented no real improvement over the Type 1. The Type 4 remedied this, however, and has not been changed in over 20 years; it has a larger, more powerful warp engine and impulse engine and upgraded weaponry. By Stardate 2/0412, all vessels of this class still in service are thought to have been converted to Type 4.

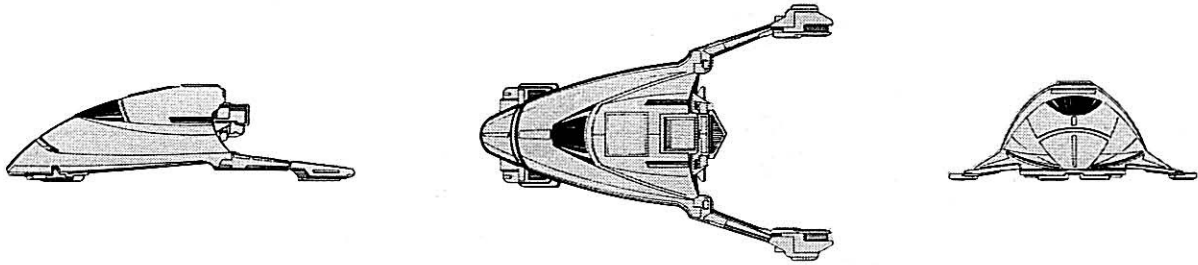
Of the approximately 1,500 P-2s built, about 950 are in active service, about 50 are assigned to reserve fleets, and about 350 have been lost or destroyed. Best count shows 117 vessels operating in the civil sector; of these, two Type 1s, one Type 2, and two Type 4s operate almost exclusively in the Triangle.

The Eridam Papers indicate that the class derives its name from a small creature of Romulan mythology, a familiar kept by Monan the Seer. The legend says that one day, while Monan was away, bandits attempted to enter his abode and steal his treasures. They were surprised by this strange little reptile, which attacked without care for its safety. Upon his return home, Monan found seven dead bandits and his familiar perilously close to death from the wounds it had received. None of Monan's treasures had been taken.





P-3 (Caladan) Class II Cutter



P-3 (Caladan) CLASS II CUTTER

Construction Data:

Model Numbers —	Type 1	Type 3
Date Entering Service —	1/95	2/04
Approx. Number Constructed —	210	745

Hull Data:

Superstructure Points —	2	3
Damage Chart —	B	B
Size		
Length —	45 m	45 m
Width —	32 m	32 m
Height —	12 m	12 m
Weight —	5100 mt	7,050 mt
Cargo		
Cargo Units —	10 SCU	10 SCU
Cargo Capacity —	500 mt	500 mt
Landing Capability —	Yes	Yes

Equipment Data:

Control Computer Type —	R1M	R1M
Transporters —	None	None

Other Data:

Crew —	12	12
Shuttlecraft —	None	None

Engines And Power Data:

Total Power Units Available —	10	10
Movement Point Ratio —	1/2	1/2
Sub-Light Engine Type —	RSLA	RSLA
Number —	1	1
Power Units Available —	10	10
Stress Charts —	H/J	H/J

Weapons And Firing Data:

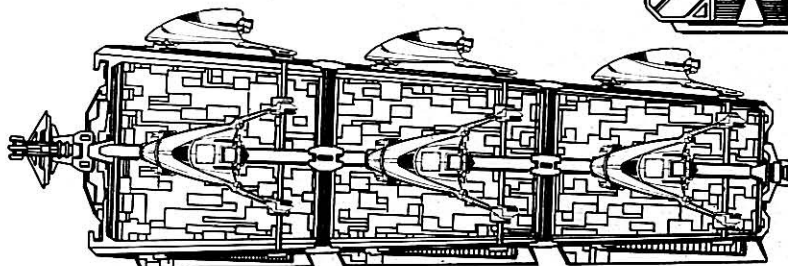
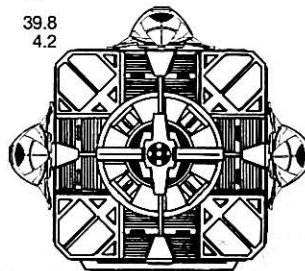
Beam Weapon Type —	RB-2	RB-2a
Number —	2	2
Firing Arcs —	1 f/s, 1 f/p	1 f/p, 1 f/s
Firing Chart —	K	K
Maximum Power —	2	3
Damage Modifiers —	None	
+3		(1 - 4)
+2		(5 - 9)
+1		(10 - 14)

Shields Data:

Deflector Shield Type —	RSA	RSC
Shield Point Ratio —	1:1	1:2
Maximum Shield Power —	5	10

Combat Efficiency:

D-	38.3	39.8
WDF-	1.6	4.2

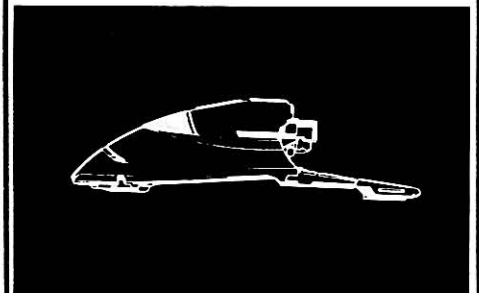


Built to supplement the *P-2s*, the *P-3s* are used in groups of two or three in the more hostile areas of the Empire. Unlike the *P-2s*, however, the *P-3s* have no warp drive capability, but rely on a powerful impulse engine for their maneuver power. These ships are transferred from one system to another by a special carrier designed to carry up to nine at one time, which can be transported freely.

The Type 1 was found to be undergunned. This fault was corrected by adding slightly more powerful weapons in the Type 3. By Stardate 2/0612, all Type 1s and Type 2s in service were refitted with the newer weapons.

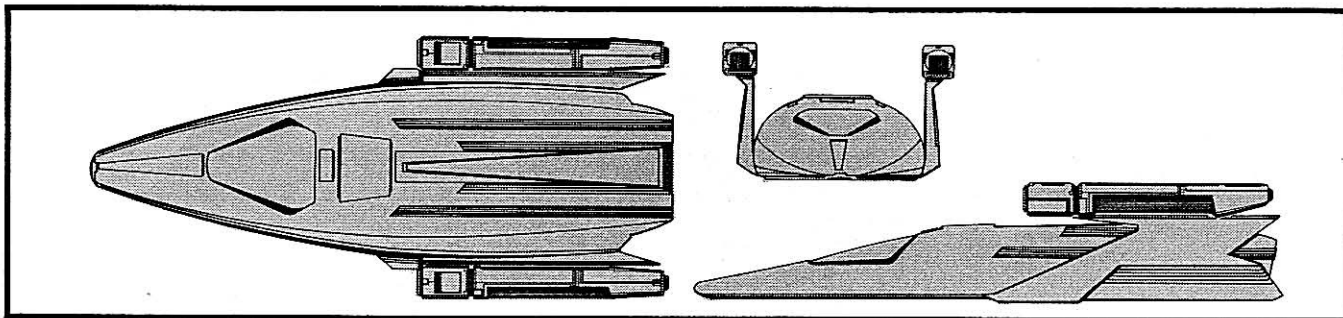
Of the approximately 960 *P-3s* built, about 650 are in active service, about 50 are in reserve fleets, and about 130 have been lost or destroyed. Intelligence estimates show about 100 Type 1/Type 2s and 30 Type 3s in use in the civil sector; of these, two Type 1s, two Type 2s, and one Type 3 are based in the Triangle.

The class is reportedly named for the Caladan Mountains of Remus, which are reputed to protect the city-states on their leeward sides from the constant and violent winds and also from marauders.





P-12 (Comilius) Class II Cutter



P-12 (Comilius) CLASS II CUTTER

Construction Data:

Model Numbers—	Type 1
Date Entering Service—	2/14
Approx. Number Constructed—	220

Hull Data:

Superstructure Points—	4
Damage Chart—	C
Size	
Length—	54 m
Width—	23 m
Height—	10 m
Weight—	14,800 mt

Cargo

Cargo Units—	4 SCU
Cargo Capacity—	200 mt
Landing Capability—	Yes

Equipment Data:

Control Computer Type—	R3M
Transporters—	None

Other Data:

Crew—	16
Shuttlecraft—	None

Engines And Power Data:

Total Power Units Available—	20
Movement Point Ratio—	1/1
Warp Engine Type—	RWA-2
Number—	2
Power Units Available—	9
Stress Charts—	J/M
Maximum Safe Cruising Speed—	Warp 6
Emergency Speed—	Warp 7
Impulse Engine Type—	RIA-2
Power Units Available—	2

Weapons And Firing Data:

Beam Weapon Type—	RB-2a
Number—	4, in banks of 2
Firing Arcs—	2 p/f/s, 2 p/a/s
Firing Chart—	K
Maximum Power—	3
Damage Modifiers—	
+3	(1 - 4)
+2	(5 - 9)
+1	(10 - 14)

Shields Data:

Deflector Shield Type—	RSC
Shield Point Ratio—	1/2
Maximum Shield Power—	10

Combat Efficiency:

D-	76.7
WDF-	8.4

Notes:

Known Sphere Of Operation: Federation and Triangle borders

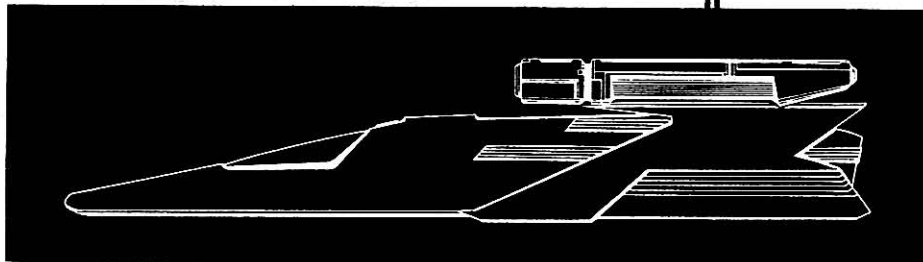
Data Reliability: B

Major Data Source: Klingon version in Star Fleet possession; Klingon sector intelligence

These Klingon vessels were traded to the Romulans beginning Stardate 2/1409, largely because of pressure on the Klingons to replace the structurally-weak N-8 (Klingon K-3) vessels. The P-12s also were altered to mount Romulan engines, weapons systems, and shields, but the modifications actually made the ships more structurally sound, probably because of the added support required for the tandem warp engines.

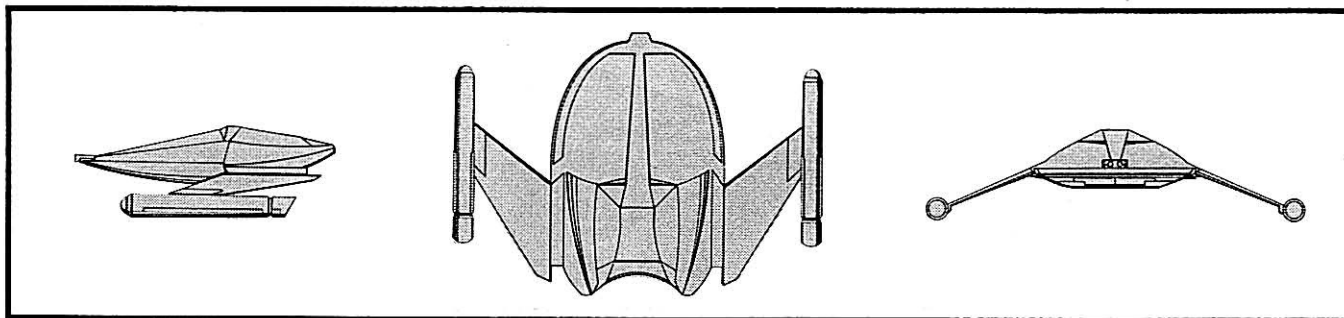
As of this date, only one type is believed to be in service. It obviously has proven effective in its gunboat/systems patrol role, and it is being used along Federation borders and those of the Triangle. Of the 220 acquired in the exchange, about 200 are in active service. Six have been seen in the Triangle operating in the civil sector.

The class is said to have been named for the famous Praetor Comilius, who, after suffering several serious defeats at the hands of his enemies, withdrew to his capital city to hold out for six years against the massive armies that each had assembled. He negotiated an alliance with one of his adversaries and broke the siege, later conquered his remaining enemies, and brought peace to his people that lasted a century.





T-2 (Death Talon) Class IV Destroyer



T-2 (Death Talon) CLASS IV DESTROYER

Construction Data:			
Model Numbers —	Type 1	Type 3	Type 7
Date Entering Service —	1/89	2/00	2/08
Approx. Number Constructed —	80	90	70
Hull Data:			
Superstructure Points —	8	8	10
Damage Chart —	B	B	B
Size			
Length —	115 m	120 m	120 m
Width —	165 m	165 m	165 m
Height —	40 m	40 m	40 m
Weight —	31,300 mt	31,500 mt	36,000 mt
Cargo			
Cargo Units —	45 SCU	40 SCU	40 SCU
Cargo Capacity —	2250 mt	2000 mt	2000 mt
Landing Capability —	Yes	Yes	Yes
Equipment Data:			
Control Computer Type —	R3M	R3M	R3M
Transporters —			
Standard 9-person	2	2	2
Emergency 20-person	1	1	1
Cargo	1	1	1
Cloaking Device Type —	None	None	RCB
Power Requirement —	—	—	10
Other Data:			
Crew —	105	110	112
Shuttlecraft —	None	None	None
Engines And Power Data:			
Total Power Units Available —	23	23	25
Movement Point Ratio —	2/1	2/1	2/1
Warp Engine Type —	RWB-1	RWB-1	RWB-1
Number —	2	2	2
Power Units Available —	10	10	10
Stress Charts —	M/P	M/P	M/P
Maximum Safe Cruising Speed —	Warp 6	Warp 6	Warp 6
Emergency Speed —	Warp 7	Warp 7	Warp 7
Impulse Engine Type —	RIB-2	RIB-2	RIB-3
Power Units Available —	3	3	5
Weapons And Firing Data:			
Beam Weapon Type —	RB-2	RB-2	RB-2a
Number —	4	4	6
Firing Arcs —	2 f/p, 2 f/s	2 f/p, 2 f/s	2 f/p, 2 aft, 2 f/s
Firing Chart —	K	K	K
Maximum Power —	2	2	3
Damage Modifiers —	None	None	—
+3	—	—	(1 – 4)
+2	—	—	(5 – 9)
+1	—	—	(10 – 14)
Plasma Weapon Type —	None	RPL-1	RPL-1
Number —	—	1	1
Firing Arcs —	—	fwd	fwd
Firing Chart —	—	E	E
Power To Arm —	—	10	10
Damage —	—	See Chart	See Chart
Shields Data:			
Deflector Shield Type —	RSD	RSC	RSE
Shield Point Ratio —	1/1	1/2	1/2
Maximum Shield Power —	8	7	10
Combat Efficiency:			
D-	38.9	53.4	63.8
WDF-	3.2	7.1	25.0

Notes:

Known Sphere Of Operation: Empire interior

Data Reliability: C

Major Data Source: Border patrol contact reports

Introduced about Stardate 1/8905 and assigned as groups to various fleets in the Romulan navy, the T-2s were designed for escort and patrol duties. Though they had no room to spare for leisure, and though the quarters and work areas were quite cramped, the class is considered to be roomy and comfortable by early standards.

After Stardate 1/9902, vessels appeared in which the hull had been modified to hold a plasma weapon. After Stardate 2/0001, the first Type 3s appeared, with increased length, weight, and crew complement. The firepower of the new type was more than double its original configuration, and the newer shields gave a combat efficiency three times greater than the Type 1. After several years of service, the destroyers began undergoing minor changes to the hull configuration and interior layout, and, beginning with the Type 6, the weapons mountings were increased from four to six.

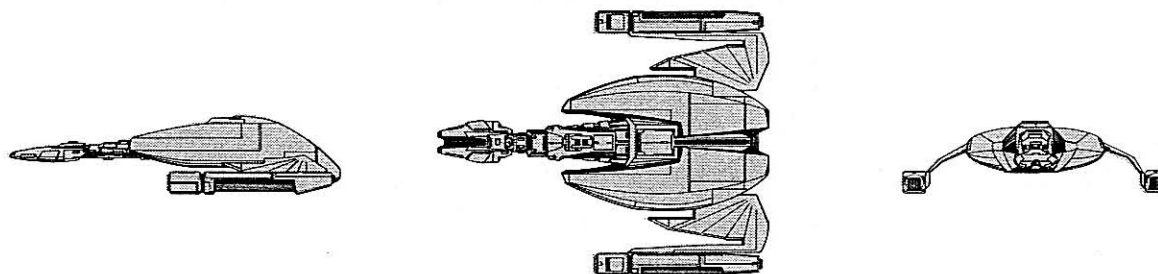
The Type 7, with this new weapons arrangement, a more powerful impulse engine, and more efficient shields, made its appearance about Stardate 2/0803. A cloaking device also was installed on the Type 7. Reports from the Klingons indicate these were useful in escort duties. Many times, Klingon long-range sensor scans of Romulan convoys would show few escort vessels, but actual contact would reveal five to ten T-2s materializing from nowhere, making the supposed easy Klingon victory and prize a mere dream.

Of the approximately 250 T-2s built, about 150 are in reserve fleets and another 20 are being used as training vessels. Only five of these ships have been sold to the civil sector, all of which operate in the the Triangle or along Federation borders; it is not known if any of these are armed.

The class is named from the Romulan *vas-tagor lattam* (death talon), a reference to the Mogari, a large carnivorous bird native to Romulus. These man-sized birds are reported to swoop down on their prey at speeds up to 120 mph and inflict fatal blows with their long talons.



T-5 (Fire Swarm) Class V/VI Destroyer



T-5 (Fire Swarm) CLASS V/VI DESTROYER

Construction Data:

Model Numbers—	Type 1	Type 4
Ship Class—	V	VI
Date Entering Service—	2/10	2/15
Approx. Number Constructed—	120	120

Hull Data:

Superstructure Points—	9	10
Damage Chart—	C	C
Size		
Length—	180 m	180 m
Width—	140 m	140 m
Height—	40 m	40 m
Weight—	59,300 mt	68,200 mt
Cargo		
Cargo Units—	40 SCU	40 SCU
Cargo Capacity—	2000 mt	2000 mt
Landing Capability—	None	None

Equipment Data:

Control Computer Type—	R4M	R4M
Transporters—		
Standard 9-person—	2	2
Emergency 20-person—	2	2
Cargo—	1	1
Cloaking Device Type—	RCB	RCC
Power Requirement—	10	15

Other Data:

Crew—	118	118
Shuttlecraft—	1	1

Engines And Power Data:

Total Power Units Available—	35	35
Movement Point Ratio—	2/1	3/1
Warp Engine Type—	RWC-2	RWC-2
Number—	2	2
Power Units Available—	15	15
Stress Charts—	N/Q	N/Q
Maximum Safe Cruising Speed—	Warp 6	Warp 6
Emergency Speed—	Warp 8	Warp 7
Impulse Engine Type—	RIB-3	RIB-3
Power Units Available—	5	5

Weapons And Firing Data:

Beam Weapon Type—	RB-8	RB-8
Number—	8, in 4 banks of 2	8, in 4 banks of 2
Firing Arcs—	2 p, 2 f, 2 s, 2 a	2 p, 2 f, 2 s, 2 a
Firing Chart—	N	N
Maximum Power—	6	6
Damage Modifiers—		
+3	(1 - 4)	(1 - 4)
+2	(5 - 9)	(5 - 9)
+1	(10 - 13)	(10 - 13)
Missile Weapon Type—	None	RP-2
Number—	—	1
Firing Arcs—	—	f
Firing Chart—	—	H
Power To Arm—	—	1
Damage—	—	8

Shields Data:

Deflector Shield Type—	RSC	RSE
Shield Point Ratio—	1/2	1/2
Maximum Shield Power—	6	8

Combat Efficiency: D—	64.3	62.6
WDF—	37.2	49.6

Notes:

Known Sphere Of Operation: Klingon border

Data Reliability: D (upgrade)

Major Data Source: Klingon sector intelligence; Project Grey Ghost encounters

After Stardate 2/1001, the T-5 Class of high-fire-power destroyers appears to have become the mainstay of the Romulan navy on the Klingon border. The Type 1 was a replacement for the T-2 (Death Talon) destroyer, with a more powerful engine and more powerful disruptors, thus giving it a greater combat efficiency than its counterpart. After some small variations on the overall design, the Type 4 was introduced and immediately saw success as a combat vessel. This model was heavier than the earlier models, causing it to be slightly slower at warp speeds and not quite as maneuverable; however, this was offset by the increase in firepower. The addition of two more disruptors and a photon torpedo made this destroyer a ship not to be taken lightly.

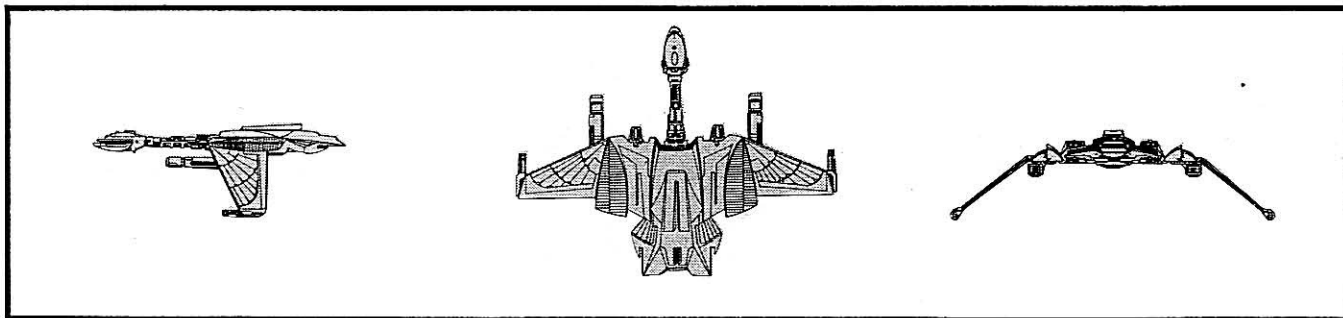
Intercepted subspace radio transmissions show that, on Stardate 2/1911, a convoy escorted by three T-5s was attacked by six Klingon D-18B destroyers. With great skill, the Romulans maneuvered their ships and destroyed the Klingon group one by one, until only one enemy vessel remained. This Klingon was heavily damaged and was not able to flee or destruct and was captured after a spirited boarding action. The Romulan losses in this incident were one T-5 damaged beyond repair and abandoned (likely destroyed), one damaged but still under its own power, and the flagship undamaged.

Of the approximately 240 T-5s built, more than 180 remain in active service. At this time, it is estimated that 15 of these ships are being produced per year. About 20 have been placed in reserve fleets, and none is known to be in the civil sector.

The class is named from the Romulan *ocala sindari* (fire swarm), in reference to an insectoid found on the planet Korma'ahve. About the size of a Terran gnat, these creatures travel in swarms of thousands. Although they are not aggressive in nature, physical contact with them is extremely painful. As a by-product of their nervous system, they secrete an acid that burns the skin on contact.



T-10 (Bright One) Class VI Destroyer



T-10 (Bright One) CLASS VI DESTROYER

Construction Data:

Model Numbers —	Type 1	Type 2
Date Entering Service —	2/16	2/21
Approx. Number Constructed —	90	20

Hull Data:

Superstructure Points —	10	11
Damage Chart —	B	B
Size —		
Length —	140 m	140 m
Width —	180 m	180 m
Height —	52 m	52 m
Weight —	61,300 mt	63,400 mt
Cargo —		
Cargo Units —	85 SCU	85 SCU
Cargo Capacity —	4250 mt	4250 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	R4M	R4M
Transporters —		
Standard 9-person —	2	2
Emergency 20-person —	1	1
Cargo —	1	1
Cloaking Device Type —	RCC	RCC
Power Requirement —	15	15

Other Data:

Crew —	122	122
Shuttlecraft —	1	1

Engines And Power Data:

Total Power Units Available —	34	40
Movement Point Ratio —	3/1	3/1
Warp Engine Type —	RWC-2	RWC-2
Number —	2	2
Power Units Available —	15	15
Stress Charts —	N/Q	N/Q
Maximum Safe Cruising Speed —	Warp 6	Warp 6
Emergency Speed —	Warp 7	Warp 7
Impulse Engine Type —	RIC-2	RIE-1
Power Units Available —	4	10

Weapons And Firing Data:

Beam Weapon Type —	RB-8	RB-8
Number —	4	4
Firing Arcs —	2 f.p., 2 f.s.	2 f.p., 2 f.s.
Firing Chart —	N	N
Maximum Power —	6	6
Damage Modifiers —		
+3 —	(1 - 4)	(1 - 4)
+2 —	(5 - 9)	(5 - 9)
+1 —	(10 - 13)	(10 - 13)
Missile Weapon Type —	None	RP-3
Number —	—	1
Firing Arcs —	—	fwd
Firing Chart —	—	Q
Power To Arm —	—	1
Damage —	—	10

Shields Data:

Deflector Shield Type —	RSE	RSE
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	8	8

Combat Efficiency:

D- —	56.3	57.7
WDF- —	24.8	33.1

Notes:

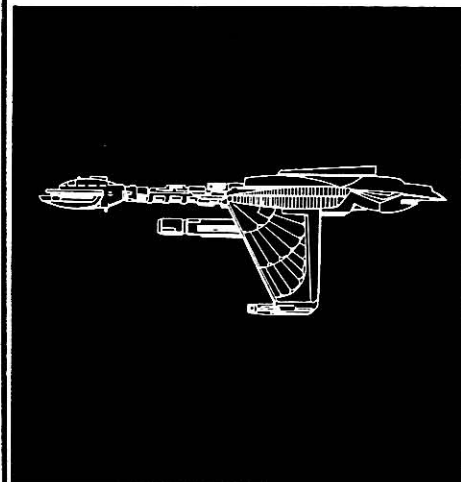
Known Sphere Of Operation: Border

Data Reliability: C

Major Data Source: Border patrol contact reports

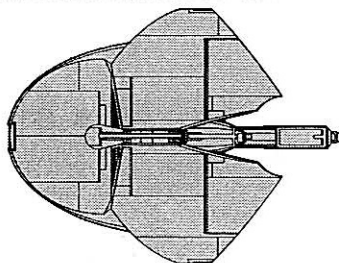
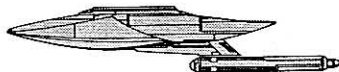
The T-10s were designed to replace the older T-2 (Death Talon) models in patrol missions, and, therefore, several of the shortcomings of the older ships were eliminated. Reportedly, the most notable was the size and arrangement of the crew quarters, though Class B plans show the vessels to be small and cramped compared to similar Federation vessels. The Type 2 vessels of recent years mount a larger impulse engine and house a photon torpedo. Nearly all of the approximately 110 T-10s remain in active service.

Named for the *reemea*, a brightly-colored bird native to Corill, these destroyers are painted by their crews in striking rainbow colors. Because no two of these vessels look alike, the paint scheme may be used for positive recognition; the scheme for seven of these vessels is recorded in Star Fleet computers.





R-4 (Mularr) Class VI Escort



R-4 (Mularr) CLASS VI ESCORT

Construction Data:

Model Numbers —	Type 1	Type 5
Date Entering Service —	2/04	2/08
Approx. Number Constructed —	85	170

Hull Data:

Superstructure Points —	8	8
Damage Chart —	C	C
Size		
Length —	186 m	186 m
Width —	147 m	147 m
Height —	38 m	38 m
Weight —	69,500 mt	71,900 mt
Cargo		
Cargo Units —	100 SCU	100 SCU
Cargo Capacity —	5000 mt	5000 mt
Landing Capability —	None	None

Equipment Data:

Control Computer Type —	R3M	R3M
Transporters —		
Standard 9-person	2	2
Emergency 20-person	1	1

Other Data:

Crew —	120	122
Shuttlecraft —	2	2

Engines And Power Data:

Total Power Units Available —	26	28
Movement Point Ratio —	3/1	3/1
Warp Engine Type —	RWF-1	RWF-2
Number —	1	1
Power Units Available —	16	18
Stress Charts —	F/K	F/L
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 9	Warp 8
Impulse Engine Type —	RIE-1	RIE-1
Power Units Available —	10	10

Weapons And Firing Data:

Beam Weapon Type —	RB-3a	RB-8
Number —	4	4
Firing Arcs —	1 p/a, 2 fwd, 1 s/a	1 p/a, 2 fwd, 1 s/a
Firing Chart —	L	N
Maximum Power —	6	6
Damage Modifiers —		
+3	(1 - 3)	(1 - 4)
+2	(4 - 8)	(5 - 9)
+1	(9 - 12)	(10 - 13)

Shields Data:

Deflector Shield Type —	RSC	RSE
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	5	8

Combat Efficiency:

D-	43.9	53.2
WDF-	14.8	16.4

Notes:

Known Sphere Of Operation:
Triangle and Klingon borders

Data Reliability: C (upgrade)

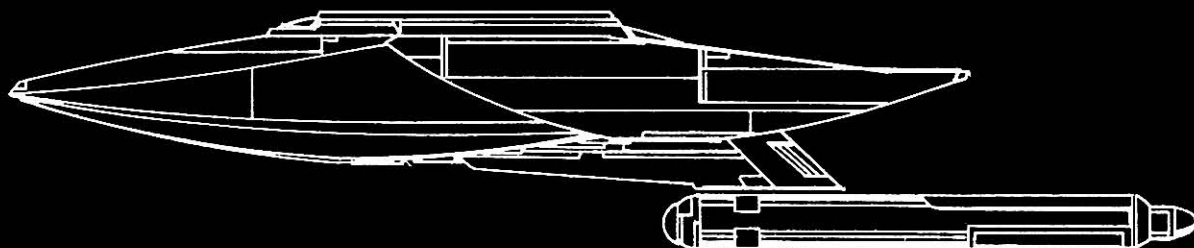
Major Data Source: Project Grey
Ghost encounters

Designed strictly as escort vessels and used only for convoy or fleet support, *R-4s* are very rarely seen alone, according to Project Grey Ghost information. Normally assigned in groups of five to seven, they are known to be sufficient in firepower to deter most enemies.

Though several Type 1 vessels remain on active duty, most have been refitted to the Type 5, with improved weapons, more powerful engine, and more efficient shields.

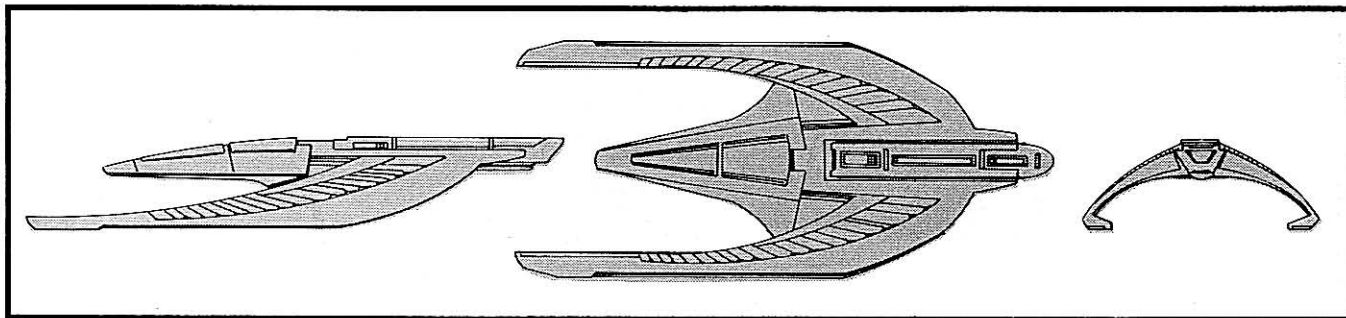
Of the approximately 250 *R-4s* built, about 200 remain in active service and about 20 are in reserve fleets. About Stardate 2/1307, an *R-4* escorting a group of three freighters was taken by a mutinous crew and disappeared with the freighters into the Triangle, where it operates currently. Intelligence reports state that the Romulan government has put a bounty on the crew members' capture and/or elimination.

The class is named for the *mularr*, a large, flying reptile native to Corill. The creature's protective nature provides the vessel its name.





N-8 (Mandukam) Class II Gunboat



N-8 (Mandukam) CLASS II GUNBOAT

Construction Data:

Model Numbers —	Type 1	Type 2
Date Entering Service —	2/09	2/10
Approx. Number Constructed —	83	40

Hull Data:

Superstructure Points —	3	4
Damage Chart —	C	C
Size		
Length —	53 m	53 m
Width —	23 m	23 m
Height —	9 m	9 m
Weight —	8650 mt	10,970 mt
Cahgo		
Cargo Units —	10 SCU	10 SCU
Cargo Capacity —	500 mt	500 mt
Landing Capability —	Yes	Yes

Equipment Data:

Control Computer Type —	R1M	R2M
Transporters —	None	None

Other Data:

Crew —	14	14
Shuttlecraft —	None	None

Engines And Power Data:

Total Power Units Available —	8	11
Movement Point Ratio —	1/2	1/1
Warp Engine Type —	RWA-1	RWA-2
Number —	1	1
Power Units Available —	6	8
Stress Charts —	K/M	K/O
Maximum Safe Cruising Speed —	Warp 7	Warp 6
Emergency Speed —	Warp 8	Warp 7
Impulse Engine Type —	RIA-2	RIA-3
Power Units Available —	2	3

Weapons And Firing Data:

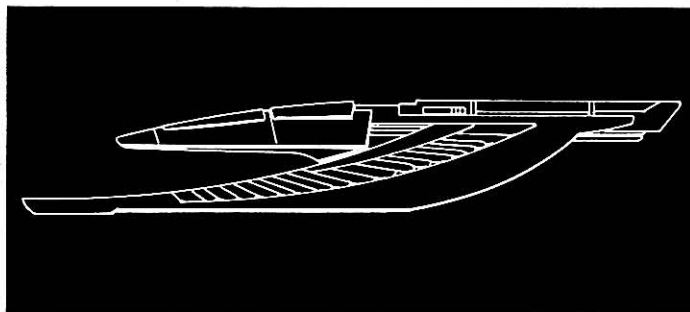
Beam Weapon Type —	RB-2a	RB-2a
Number —	2	3, with 1 bank of 2
Firing Arcs —	1 p/f/s, 1 p/a/s	2 p/f/s, 1 p/a/s
Firing Chart —	K	K
Maximum Power —	3	3
Damage Modifiers —		
+3	(1 - 4)	(1 - 4)
+2	(5 - 9)	(5 - 9)
+1	(10 - 14)	(10 - 14)

Shields Data:

Deflector Shield Type —	RSC	RSC
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	10	10

Combat Efficiency:

D-	64.3	50.7
WDF-	4.2	6.3



Notes:

Known Sphere Of Operation: Empire spinward borders

Data Reliability: B

Major Data Source: Klingon version of vessel in Star Fleet possession; Klingon sector intelligence

The N-8 Class gunboat is one of the first ships the Romulans acquired (Stardate 2/0905) from the Klingons to supplement gunboat and cutter squadrons along the Federation and spinward borders. Though intelligence reports that the Klingons required this disposition as part of the trade agreement, agents reported that, in response to pressure along the Romulan-Klingon border, these ships began to see service in there as well.

Reports from agents within the Klingon Empire show that the Klingon K-3s traded were not fully operational, the Romulans having requested that no engines, weapons, or shields be mounted. Comparison of the Romulan-refitted model with that which the Klingons delivered show that several major structural changes were required in order for the Romulan equipment to be installed. Of these changes, the most notable was the reduction of internal structural components that lessened the superstructure strength, which likely accounts for the vessel's tendency to break apart during high speed maneuvers. The vessel reportedly was not popular with crews. It was removed from service by Stardate 2/1703.

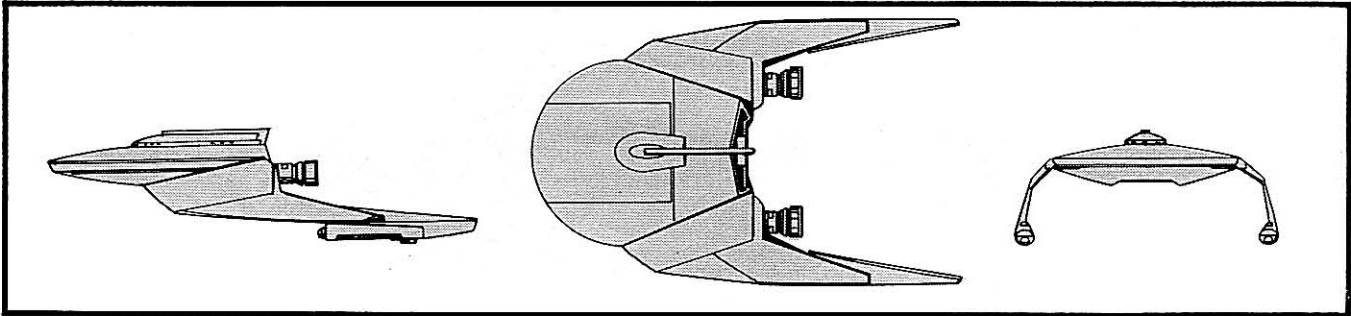
Soon after the Type 1 was put into service, it was found to have inadequate weapons mountings and to be underpowered. The Type 2, brought into service Stardate 2/10, corrected these problems, and, by Stardate 2/13, all Type 1s had been refitted with the newer engines and an additional bank of beam weapons. In making these changes, the superstructure strength was increased somewhat, but not enough to correct the the problems with structural integrity during high-speed maneuvers.

Of the 123 K-3 gumboats exchanged, about 30 N-8s are known to be in reserve fleets. Of the remainder, approximately 10 Type 1s and 35 Type 2s are at work in the civil sector; two Type 1s and six Type 2s operate exclusively in the Triangle.

The class is named in reference to its mission, from the Romulan *mandukam* (vigilant one).



Q-1 (Great Defender) Class III Monitor



Q-1 (Great Defender) CLASS III MONITOR

Construction Data:

Model Numbers —	Type 1
Date Entering Service —	1/91
Approx. Number Constructed —	150

Hull Data:

Superstructure Points —	6
Damage Chart —	B
Size	
Length —	130 m
Width —	80 m
Height —	35 m
Weight —	15,300 mt

Cargo

Cargo Units —	20 SCU
Cargo Capacity —	1000 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	R2M
Transporters —	
Standard 9-person	2

Other Data:

Crew —	32
Shuttlecraft —	1

Engines And Power Data:

Total Power Units Available —	18
Movement Point Ratio —	2/1
Warp Engine Type —	RSLA
Number —	2
Power Units Available —	9

Weapons And Firing Data:

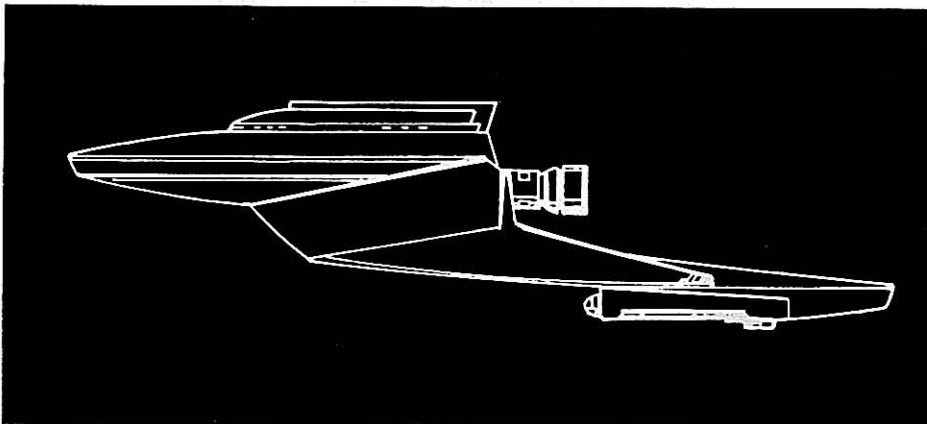
Beam Weapon Type —	RB-2
Number —	8, in 4 banks of 2
Firing Arcs —	2 p/a, 4 fwd, 2 s/a
Firing Chart —	K
Maximum Power —	2
Damage Modifiers —	None

Shields Data:

Deflector Shield Type —	RSD
Shield Point Ratio —	1/1
Maximum Shield Power —	9

Combat Efficiency:

D-	34.6
WDF-	6.4



Notes:

Known Sphere Of Operation:
Triangle and Klingon borders; Empire interior

Data Reliability: E

Major Data Source: Subspace radio communications monitored by Triangle sector intelligence

About Stardate 1/9109, just prior to the outbreak of the Four Years War, the first of these monitors began active service guarding systems bordering the Triangle area and Klingon territories to coreward. As the war progressed, their numbers were increased, likely because the Romulans feared a possible invasion by either of their foes.

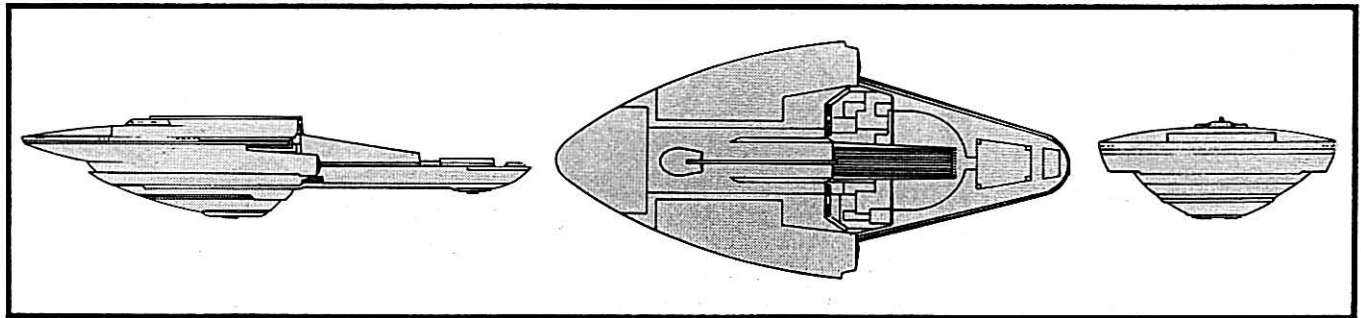
This class is powered by the Romulan Sub-Light Engine Class A and carries no impulse drive system. These vessels mount eight disruptors in four banks, making them formidable opponents for rebels and pirates. It was during the period immediately following the war that the Romulans discovered that the vessels were not quite suited for their mission of support for cutters and gunboats in systems defense. As with most Romulan ships, these vessels were not very comfortable and did not lend themselves to prolonged duty. Because of this, they were reassigned to guard border outposts as the Q-4 (Protector) vessels replaced them; by Stardate 2/1103, all of the vessels of this type are believed to have been removed from active service.

Of the approximately 150 Q-1s built, about 130 have been assigned to active reserve fleets within the interior of the Empire. Twelve are known to have been disarmed and sold to the civil sector. Of the three that operate exclusively in the Triangle, one is rumored to have been fully rearmed for guard duty around Fountainworld, a wealthy tourist spa in the Association Of Outer Free Worlds.

The class is named from the Romulan *d'deletham* (great defender), in reference to its mission.



Q-4 (Protector) Class IV Monitor



Q-4 (Protector) CLASS IV MONITOR

Construction Data:

	Type 3	Type 9
Model Numbers —	2/00	2/08
Date Entering Service —	160	280
Approx. Number Constructed —		

Hull Data:

	Type 3	Type 9
Superstructure Points —	5	6
Damage Chart —	B	B
Size		
Length —	152 m	152 m
Width —	70 m	70 m
Height —	32 m	32 m
Weight —	25,000 mt	29,000 mt

Cargo

	Type 3	Type 9
Cargo Units —	12 SCU	12 SCU
Cargo Capacity —	600 mt	600 mt
Landing Capability —	None	None

Equipment Data:

	Type 3	Type 9
Control Computer Type —	R3M	R4M
Transporters —		
Standard 9-person	1	1
Cloaking Device Type —	RCB	RCB
Power Requirement —	10	10

Other Data:

	Type 3	Type 9
Crew —	34	34
Shuttlecraft —	1	1

Engines And Power Data:

	Type 3	Type 9
Total Power Units Available —	27	27
Movement Point Ratio —	3/1	3/1
Sub-Light Engine Type —	RSLA	RSLA
Number —	3	3
Power Units Available —	9	9

Weapons And Firing Data:

	Type 3	Type 9
Beam Weapon Type —	RB-2a	RB-7a
Number —	10, in 5 banks of 2	10, in 5 banks of 2
Firing Arcs —	4 p/a, 2 fwd, 4 s/a	4 p/a, 2 fwd, 4 s/a
Firing Chart —	K	M
Maximum Power —	3	4
Damage Modifiers —		
+3	(1 - 4)	(1 - 3)
+2	(5 - 9)	(4 - 9)
+1	(10 - 14)	(10 - 14)

Shields Data:

	Type 3	Type 9
Deflector Shield Type —	RSC	RSC
Shield Point Ratio —	1/2	1/2
Maximum Shield Power —	7	7

Combat Efficiency:

	Type 3	Type 9
D-	48.9	48.9
WDF-	21.0	30.0

Notes:

Known Sphere Of Operation:
Klingon border

Data Reliability: C (upgrade)

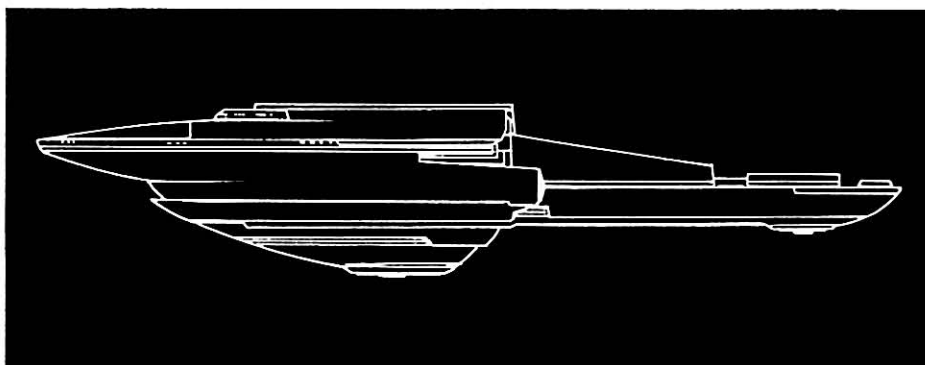
Major Data Source: Border patrol contact reports; Project Grey Ghost short-range scans

Probably built to replace the *Q-1* (Great Defender), the vessels of the *Q-4* Class are more suited for prolonged duty. Vessels near the border are equipped with Sub-Light Class A engines. When these ships first appeared on the frontiers, it was believed that the Romulans had found a way to balance a tri-nary warp envelope. As can be seen, the ships look peculiar with their three engine nacelles, which are easily-identified on sensor scan. Project Grey Ghost was unable to confirm that these vessels had warp capability, as originally reported.

The *Q-4* class, like its predecessor, is wellarmed. Mounting ten disruptors in five banks, it has a very effective field of fire. The only improvement to the ship weaponry has been with the Type 9, which carries an improved version of the RB-7, known as the RB-7a. By Stardate 2/1204, all Type 3s scanned had been refitted with the RB-7a and given the uprated R4M computer system to handle the added firepower.

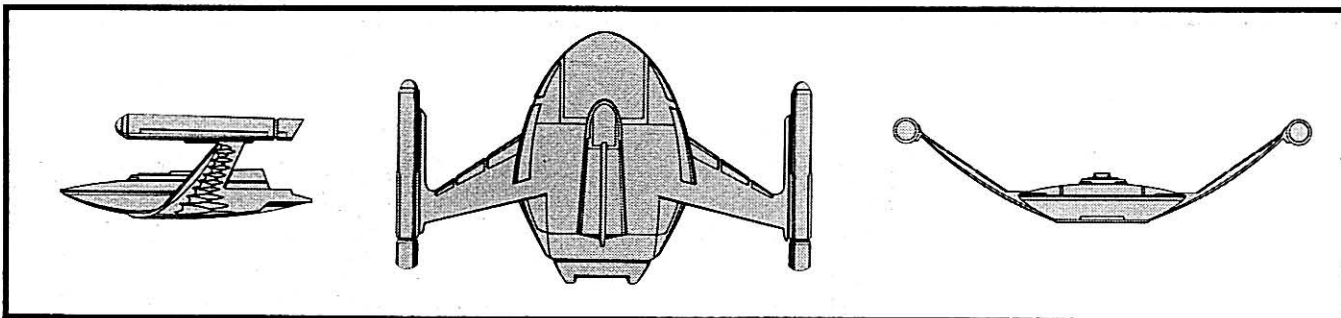
Of the approximately 450 *Q-4*s built, almost 370 remain in active service and about 40 have been assigned to active reserve groups within the Empire.

The class is named from the Romulan *deletham* (protector), in reference to its mission.





S-3 (Free Flight) Class III/IV Scout



S-3 (Free Flight) CLASS III/IV SCOUT

Construction Data:

Model Numbers—	Type 1	Type 3	Type 8	Type 11
Ship Class—	III	III	IV	IV
Date Entering Service—	1/82	1/87	2/00	2/09
Approx. Number Constructed—	200	370	150	84

Hull Data:

Superstructure Points—	5	5	5	6
Damage Chart—	B	B	B	B
Size				
Length—	80 m	80 m	80 m	80 m
Width—	132 m	132 m	132 m	132 m
Height—	30 m	30 m	30 m	30 m
Weight—	15,580 mt	15,830 mt	26,780 mt	30,900 mt

Cargo

Cargo Units—	10 SCU	10 SCU	10 SCU	10 SCU
Cargo Capacity—	500 mt	500 mt	500 mt	500 mt
Landing Capability—	Yes	Yes	Yes	Yes

Equipment Data:

Control Computer Type—	R3M	R3M	R3M	R4M
Transporters—	—	—	—	—
Standard 9-person	1	1	1	1

Other Data:

Crew—	12	12	12	12
Shuttlecraft—	None	None	None	None

Engines And Power Data:

Total Power Units Available—	21	21	23	25
Movement Point Ratio—	1/1	1/1	1/1	1/1
Warp Engine Type—	RWA-2	RWA-2	RWB-1	RWB-2
Number—	2	2	2	2
Power Units Available—	9	9	10	11
Stress Charts—	J/M	J/M	M/P	N/P
Maximum Safe Cruising Speed—	Warp 6	Warp 6	Warp 6	Warp 6
Emergency Speed—	Warp 7	Warp 7	Warp 7	Warp 7
Impulse Engine Type—	RIA-3	RIA-3	RIA-3	RIA-3
Power Units Available—	3	3	3	3

Weapons And Firing Data:

Beam Weapon Type—	RB-1	RB-2	RB-7	RB-7
Number—	1	2	2	4
Firing Arcs—	fwd	fwd	fwd	2 f/p, 2 f/s
Firing Chart—	G	K	J	J
Maximum Power—	2	2	4	4
Damage Modifiers—	None	None	—	—
+2	—	—	(1 - 6)	(1 - 6)
+1	—	—	(7 - 10)	(7 - 10)

Shields Data:

Deflector Shield Type—	RSB	RSB	RSB	RSC
Shield Point Ratio—	1/1	1/1	1/1	1/2
Maximum Shield Power—	7	7	7	7

Combat Efficiency:

D-	46.6	46.6	49.6	88.6
WDF-	0.5	1.6	4.6	9.2

Notes:

Known Sphere Of Operation: Empire interior

Data Reliability: C

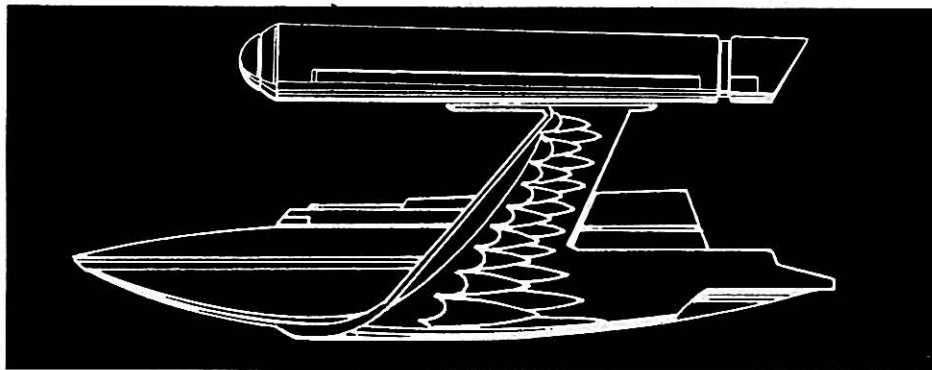
Major Data Source: Contact reports from border conflicts; Project Grey Ghost data acquisition

This reserve-status class was once in the forefront of early coreward and spinward advances, accounting for a reported 60% of the contacts made with new civilizations. Known from its introduction for its speed and maneuverability, the Type 1 was found only to be lacking in the power of its weaponry. By Stardate 1/8707, the Type 3 is known to have been introduced, and, by Stardate 1/9902, the Type 1 no longer existed in the fleet.

The S-3 underwent internal changes that did not effect the overall performance of the vessel until the Type 8 was introduced about Stardate 2/0000. This new type mounted more powerful engines and weapons than earlier versions; the overall warp speed was increased. The final modification to this class was the Type 11, introduced about Stardate 2/0910; this version had an impressive array of weapons and an upgraded shield system.

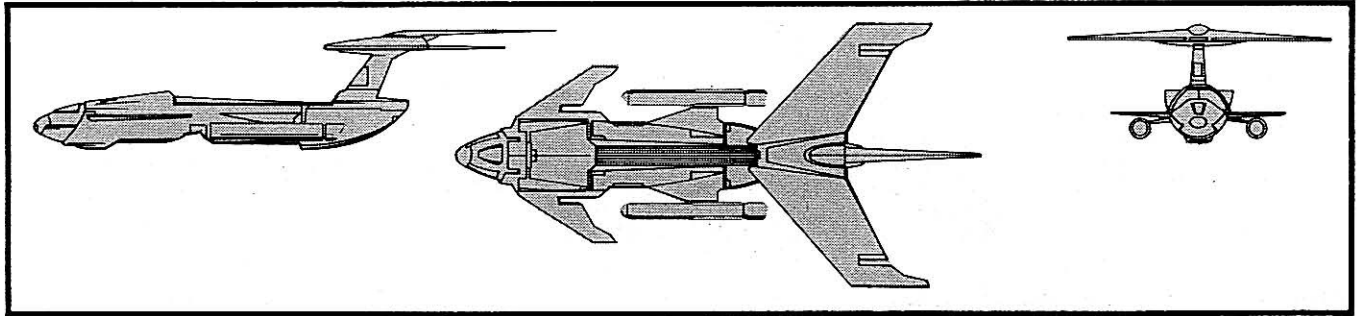
At this time, all vessels of this class are believed to have been removed from active duty. Of the nearly 800 vessels constructed, about 400 were placed into reserve status and about 200 are assumed to have been lost. Most of the vessels sold are being used as light transport, though several are being used for private research; of the 176 vessels known to be operating in the civil sector, two are Type 11s and frequent the Triangle.

The class is named from the Romulan *revastal* (free flight), a reference to its speed and maneuverability.





S-4 (Swift Wing) Class IV Scout



S-4 (Swift Wing) CLASS IV SCOUT

Construction Data:

Model Numbers—	Type 1
Date Entering Service—	1/94
Approx. Number Constructed—	150

Hull Data:

Superstructure Points—	5
Damage Chart—	B
Size	
Length—	120 m
Width—	60 m
Height—	28 m
Weight—	27,100 mt
Cargo	
Cargo Units—	5 SCU
Cargo Capacity—	250 mt
Landing Capability—	Yes

Equipment Data:

Control Computer Type—	R3M
Transporters—	
Standard 9-person	1

Other Data:

Crew—	28
Shuttlecraft—	None

Engines And Power Data:

Total Power Units Available—	23
Movement Point Ratio—	2/1
Warp Engine Type—	RWB-1
Number—	2
Power Units Available—	10
Stress Charts—	M/P
Maximum Safe Cruising Speed—	Warp 6
Emergency Speed—	Warp 7
Impulse Engine Type—	RIB-2
Power Units Available—	3

Weapons And Firing Data:

Beam Weapon Type—	RB-7
Number—	2
Firing Arcs—	1 f/p, 1 f/s
Firing Chart—	J
Maximum Power—	4
Damage Modifiers—	
+2	(1 - 6)
+1	(7 - 10)

Shields Data:

Deflector Shield Type—	RSB
Shield Point Ratio—	1/1
Maximum Shield Power—	7

Combat Efficiency:

D-	33.1
WDF-	4.6

Notes:

Known Sphere Of Operation: Empire-wide use as civilian craft

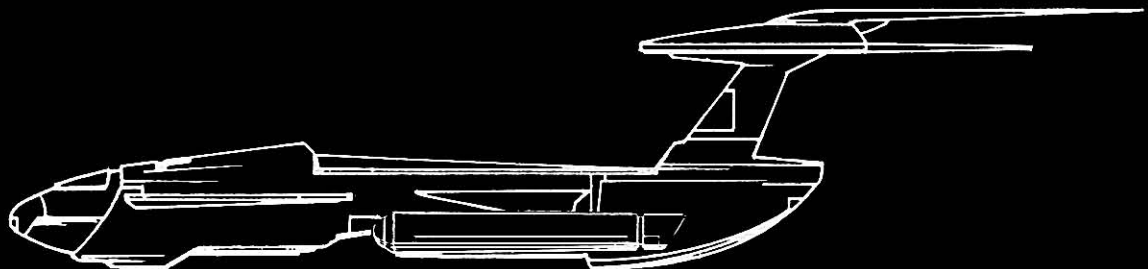
Data Reliability: C

Major Data Source: Triangle sector intelligence

The S-4 Class was commissioned to lead the expansion into the galactic trailing arm. To accomplish its mission, this class needed speed and maneuverability; it is reported that these sleek ships were a real joy to fly in the atmosphere due to their responsive manual controls. Its light armament was a liability, making the vessels unsuitable for combat roles and endangering crews when exploring new worlds with their own starfaring capabilities.

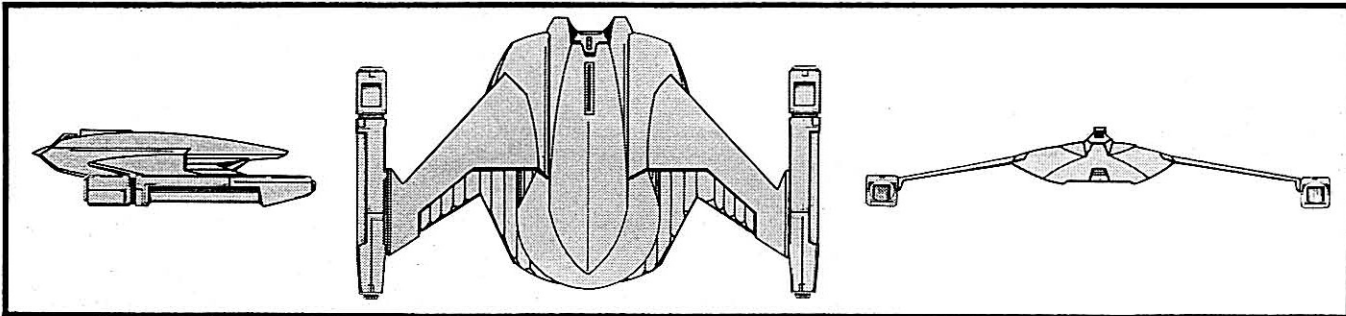
Due to its inability to perform its assigned tasks, the Swift Wings were not produced in any great number and were not modified or upgraded. Of the approximately 160 vessels produced, about 100 are known to be operating in the civil sector, many within the Triangle. Project Grey Ghost found no evidence of any use in the Romulan reserve fleets.

The class is named from the Romulan *delon vastam* (swift wing), in reference to its atmospheric capabilities.





S-9 (Wind Carrier) Class V Scout



S-9 (Wind Carrier) CLASS V SCOUT

Construction Data:

Model Numbers—	Type 1	Type 4
Date Entering Service—	2/10	2/14
Approx. Number Constructed—	266	182

Hull Data:

Superstructure Points—	7	7
Damage Chart—	C	C
Size		
Length—	72 m	72 m
Width—	120 m	120 m
Height—	20 m	20 m
Weight—	44,300 mt	45,600 mt

Cargo

Cargo Units—	60 SCU	60 SCU
Cargo Capacity—	3000 mt	3000 mt
Landing Capability—	Yes	Yes

Equipment Data:

Control Computer Type—	R3M	R3M
Transporters—		
Standard 9-person	1	1
Cargo	1	1

Other Data:

Crew—	42	42
Shuttlecraft—	None	None

Engines And Power Data:

Total Power Units Available—	23	23
Movement Point Ratio—	2/1	2/1
Warp Engine Type—	RWD-2	RWD-2
Number—	1	1
Power Units Available—	18	18
Stress Charts—	O/Q	O/Q
Maximum Safe Cruising Speed—	Warp 7	Warp 7
Emergency Speed—	Warp 8	Warp 8
Impulse Engine Type—	RIB-3	RIB-3
Power Units Available—	5	5

Weapons And Firing Data:

Beam Weapon Type—	RB-7a	RB-7a
Number—	2	4, in 2 banks of 2
Firing Arcs—	fwd	2 f/p, 2 f/s
Firing Chart—	M	M
Maximum Power—	4	4
Damage Modifiers—		
+3	(1 - 3)	(1 - 3)
+2	(4 - 9)	(4 - 9)
+1	(10 - 14)	(10 - 14)

Shields Data:

Deflector Shield Type—	RSC	RSC
Shield Point Ratio—	1/2	1/2
Maximum Shield Power—	6	6

Combat Efficiency:

D-	52.0	52.0
WDF-	6.0	12.0

Notes:

Known Sphere Of Operation: Empire frontiers

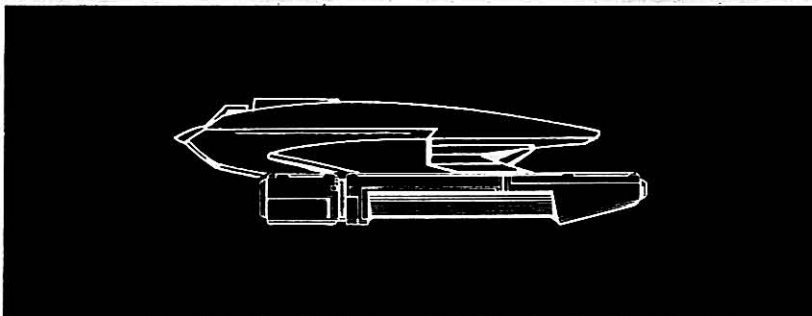
Data Reliability: E (new)

Major Data Source: Transmissions monitored by Project Grey Ghost

The S-9 Class probably was designed to replace the older S-4 (Swift Wing) as a front-line scout vessel capable of combat and exploration duties. The inadequate weaponry of its predecessor corrected by the addition of more powerful disruptors and more efficient shields, the Type 1 was a vast improvement. The Type 4 mounts two banks of two disruptors, giving the scout a better field of fire and increasing its combat efficiency beyond that of the CS-2 (Graceful Flyer), which it is believed to have also replaced. The class reportedly leads the Romulan expansion efforts spinward.

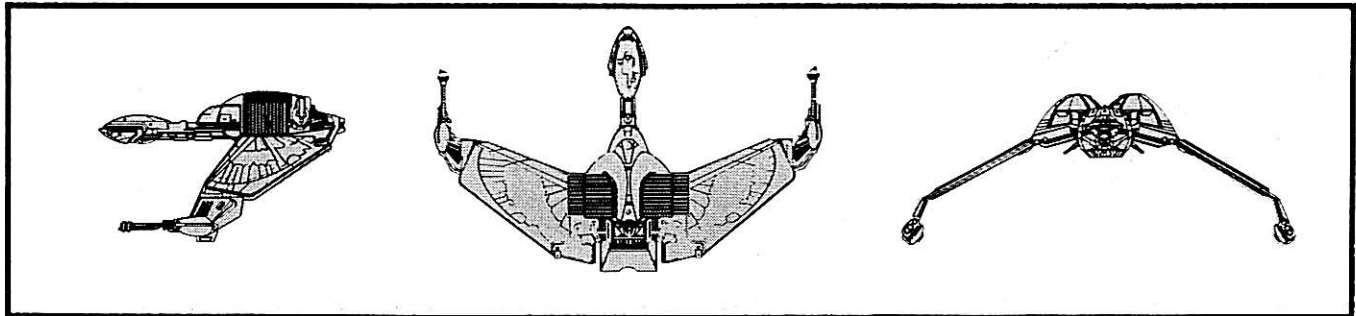
Of the approximately 450 vessels built, about 400 are reported to remain in active service and about 20 have been placed in reserve fleets. Best estimates now give 19 Type 1s operating in the civil sector; plans for a vessel now believed to be one of these have been purchased from Orion sources in the Triangle.

This class is named for *Talas Mosarum* (Wind Carrier), an ancient Romulan chieftain said to have carried the winds of Romulus with him as he travelled his territories. This leader supposedly waited to attack his enemies until storms were brewing in the area, and then would lead his armies into battle in the vanguard of the winds and rain.





S-11 (Bird Of Prey) Class V Scout



S-11 (Bird Of Prey) CLASS V SCOUT

Construction Data:

Model Numbers —	Type 1
Date Entering Service —	2/17
Approx. Number Constructed —	84

Hull Data:

Superstructure Points —	8
Damage Chart —	C
Size	
Length —	88 m
Width —	130 m
Height —	16 m
Weight —	47,800 mt
Cargo	
Cargo Units —	5 SCU
Cargo Capacity —	250 mt
Landing Capability —	Yes

Equipment Data:

Control Computer Type —	R3M
Transporters —	
Standard 9-person	1
Cloaking Device Type —	RCB
Power Requirement —	10

Other Data:

Crew —	14
Shuttlecraft —	None

Engines And Power Data:

Total Power Units Available —	30
Movement Point Ratio —	2/1
Warp Engine Type —	RWD-2
Number —	1
Power Units Available —	18
Stress Charts —	O/Q
Maximum Safe Cruising Speed —	Warp 7
Emergency Speed —	Warp 8
Impulse Engine Type —	RID-3
Power Units Available —	12

Weapons And Firing Data:

Beam Weapon Type —	RB-7a
Number —	4, in 2 banks of 2
Firing Arcs —	2 f.p., 2 f/s
Firing Chart —	M
Maximum Power —	4
Damage Modifiers —	
+3	(1 - 3)
+2	(4 - 9)
+1	(10 - 14)
Missile Weapon Type —	RP-2
Number —	1
Firing Arcs —	fwd
Firing Chart —	H
Power To Arm —	1
Damage —	8

Shields Data:

Deflector Shield Type —	RSC
Shield Point Ratio —	1/2
Maximum Shield Power —	6

Combat Efficiency:

D-	63.4
WDF-	21.6

Notes:

Known Sphere Of Operation: Empire-wide use
Data Reliability: C (upgrade)

Major Data Source: Scanned by Project Grey Ghost; Triangle sector intelligence

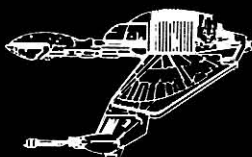
The improved S-11 (Bird of Prey) is probably the most formidable of all enemy scout ships facing the Federation. It is the first blending of Klingon and Romulan technologies to come from the exchange agreements between these powers. The improved power plant is housed in a Klingon-designed compartment made for survivability during combat; the addition of the photon torpedo tube is a direct result of Klingon influence.

The S-11 is believed to be the first scout ship to use the cloaking device for deep-space penetrations of UFP and Klingon territories, which theretofore have been performed only by larger capital ships. The Romulan High Command apparently now feels that the survival potential of the S-11 is just as great as for larger vessels, probably because of the scout's size and cloaking ability.

As of this date, only the Type 1 is known to exist. Consistent with Romulan methods, other types probably are in the making, if not already coming on line. None of these vessels have passed into the private sector at this time; 82 are known to actively patrol both the Klingon and Federation borders. The Klingon version of this vessel is in Star Fleet possession, captured by Admiral James T. Kirk.

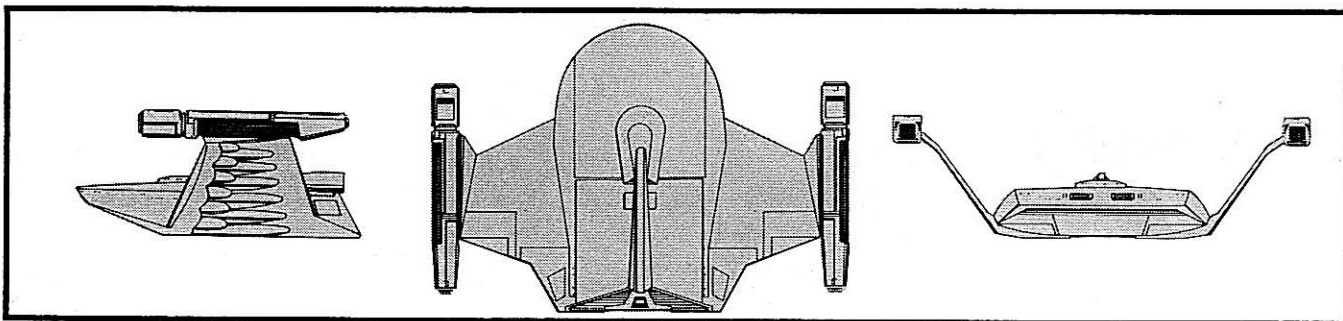
This design so intrigued the Klingons that, as part of the treaties of Stardate 2/1801, they insisted that a small number of these vessels be exchanged for plans of improved Klingon weaponry. At the signing of the treaty, seven of these vessels (named *Strong Bird* by the Klingons) were given to the Klingons, along with a modified version of the famed cloaking device. Within a year, several larger prototypes of this design appeared in the Klingon inventory, a mimicry the Romulans do not find flattering. As the relationship between the Klingons and Romulans has become more strained, Romulan commanders are reported to be increasingly nervous at the fact of having to someday face these giant clones.

The class takes its name from the famed V-8 Class cruiser, because of the similarity in the designs of the two vessels. It is proving to be worthy of replacing the cruiser's notoriety as a hit-and-run vessel.





I-4 (Graffler) Class VII/IX Freighter



I-4 (Graffler) CLASS VII/IX FREIGHTER

Construction Data:

Model Numbers —
Ship Class —
Date Entering Service —
Approx. Number Constructed —

Type 1
VII
1/98
80

Type 3
IX
2/08
160

Hull Data:

Superstructure Points —
Damage Chart —
Size

15
B

15
B

Length —
Width —
Height —
Weight —

240 m
180 m
60 m
86,200 mt

240 m
180 m
60 m
126,700 mt

Cargo

Cargo Units —
Cargo Capacity —
Landing Capability —

8000 SCU
400,000 mt
None

9400 SCU
470,000 mt
None

Equipment Data:

Control Computer Type —
Transporters —
Standard 9-person
Small cargo
Large cargo
Cloaking Device Type —

R4M
2
3
3
None

R4M
2
3
3
None

Other Data:

Crew —
Shuttlecraft —

40
4

40
4

Engines And Power Data:

Total Power Units Available —
Movement Point Ratio —

35

44

Unloaded

3/1

4/1

Loaded

5/1

7/1

Warp Engine Type —

Number —

RWD-1

RWF-1

Power Units Available —

2

2

Stress Charts —

O/Q

G/L

Maximum Safe Cruising Speed —

Unloaded

Warp 6

Warp 7

Loaded

Warp 4

Warp 4

Emergency Speed —

Unloaded

Warp 7

Warp 9

Loaded

Warp 5

Warp 6

Impulse Engine Type —

Power Units Available —

RIB-2

RID-2

3

8

Weapons And Firing Data:

None

None

Shields Data:

Deflector Shield Type —
Shield Point Ratio —
Maximum Shield Power —

RSG
1/1
12

RSH
1/1
8

Combat Efficiency: D-
WDF-

44.5
0

41.5
0

Notes:

Known Sphere Of Operation: Empire-wide use

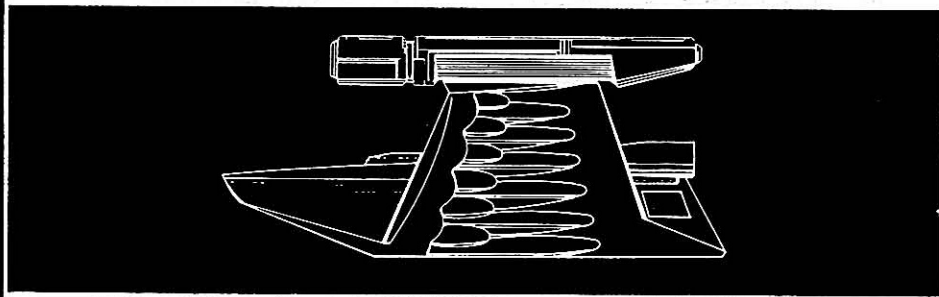
Data Reliability: C

Major Data Source: Triangle Sector Intelligence

Introduced about Stardate 1/98, the Type 1 was considered to be state-of-the-art in freighter design at the time but it was soon realized that it was underpowered for the cargo it could carry in its internal cargo bays. The Type 3, introduced about Stardate 2/0801, mounted a more powerful drive system that was capable of maintaining higher warp speeds. There was a trade-off in this increased performance and that was the slight loss of maneuverability and available shielding. By Stardate 2/12, all Type 1s in the Military and Exploration Divisions were refitted to Type 3s. Of the approximately 250 built, only about 150 remain in active service; about 60 each are assigned to the Colonization and Military Divisions, and about 30 to the Exploration Division.

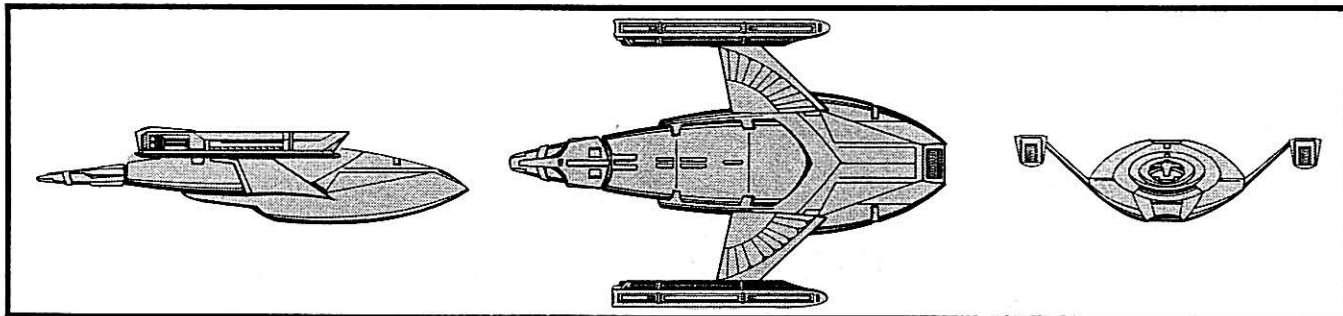
Although the navy has stopped contracting for the Type 1, it is still in production and being sold to the civil sector. The current production rate for the navy is estimated to be 10 Type 3s per year and for the civil sector a total of about 15 per year, of which ten are Type 3s and five are Type 1s. Like other Romulan commercial vessels, some of these ships are owned and operated within the Triangle.

The class is named for the *graffler*, an amphibian native to Perhonies. These small creatures have pouches that line their undersides and have an uncanny flap device that allows them to carry food and young underwater without becoming wet.





I-7 (Vespin) Class XI Freighter



I-7 (Vespin) CLASS XI FREIGHTER

Construction Data:

Hull/Ship Numbers —	Type 1
Model Numbers —	2/13
Date Entering Service —	90
Approx. Number Constructed —	

Hull Data:

Superstructure Points —	11
Damage Chart —	B
Size	
Length —	270 m
Width —	182 m
Height —	54 m
Weight —	121,000 mt

Cargo

Cargo Units —	9600 SCU
Cargo Capacity —	480,000 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	R4M
Transporters —	
Standard 9-person	2
Emergency 20-person	1
Small cargo	4
Large cargo	4
Cloaking Device Type —	None

Other Data:

Crew —	86
Shuttlecraft —	4

Engines And Power Data:

Total Power Units Available —	40
Movement Point Ratio —	
Unloaded	4/1
Loaded	6/1
Warp Engine Type —	RWF-1
Number —	2
Power Units Available —	18
Stress Charts —	G/L
Maximum Safe Cruising Speed —	
Unloaded	Warp 7
Loaded	Warp 4
Emergency Speed —	
Unloaded	Warp 9
Loaded	Warp 6
Impulse Engine Type —	RID-1
Power Units Available —	4

Weapons And Firing Data:

None

Shields Data:

Deflector Shield Type —	RSK
Shield Point Ratio —	1/2
Maximum Shield Power —	12

Combat Efficiency:

D-	61.7
WDF-	0

Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: C

Major Data Source: Triangle Sector Intelligence

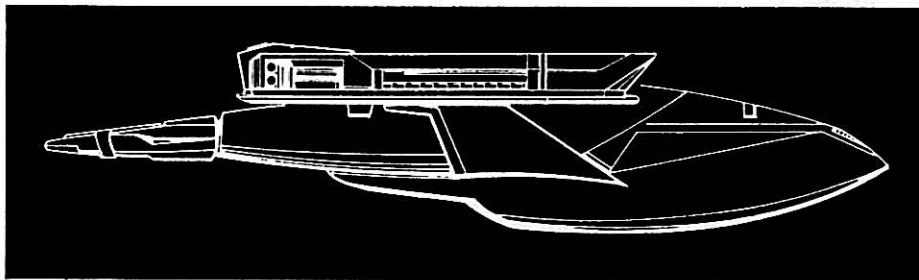
Though designed to be used as a freighter, the I-7 can be converted into a troop transport on short notice, a part of the contract for service that has proven its worth. The ships are capable of carrying 480,000 metric tons of cargo or up to 3,200 troops. When the I-7 entered service approximately Stardate 2/13, they were assigned to the Military and Outpost Divisions, which made them easily accessible for conversion and put them under the command of the divisions that would require their services.

When the I-7 is used to carry troops, half of the cargo transporters are removed and replaced with 16 transporter stations capable of beaming 14 troopers per station. This allows 242 soldiers to be beamed to the surface every two minutes or the entire contingent of troops in less than 30 minutes. The remaining cargo transporters are used to beam down support equipment such as armored vehicles and artillery.

Of the approximately 90 built, nearly all are in active service. Current production rates on this vessel are estimated at eight per year.

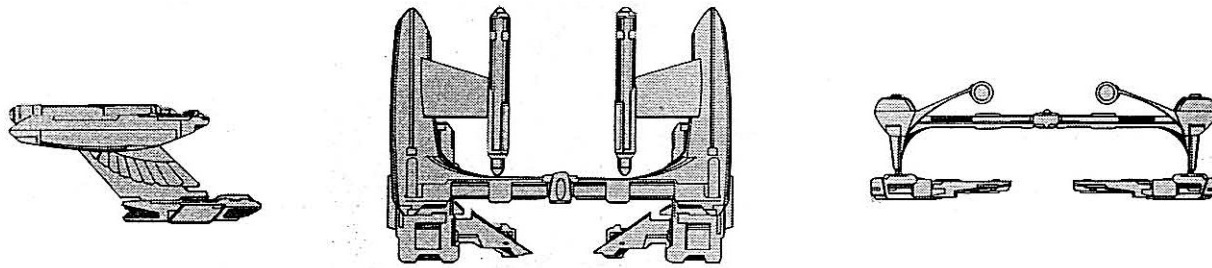
The I-7 is not as widely used by the civil sector as are the other freight carriers of the Star Navy, likely because of the recall/refit clause reported to be required of all civilian purchasers. It is estimated that only 60 of these vessels are being used by private industry. Several are known to be operating in the Triangle.

The class is named for Vespin, a trade city in the Kalabestasz system.





J-3 (Starlifter) Class VI/IX Freighter



J-3 (Starlifter) CLASS VI/IX FREIGHTER

Construction Data:

Model Numbers —	Type 2	Type 9	Type 14
Ship Class —	VI	VII	IX
Date Entering Service —	1/90	1/98	2/12
Approx. Number Constructed —	330	260	110

Hull Data:

Superstructure Points —	10	12	12
Damage Chart —	A	A	A
Size			
Length —	180 m	180 m	180m
Width —	242 m	242 m	242m
Height —	81 m	81 m	81m
Weight —	78,700 mt	81,700 mt	122,300mt

Cargo

Internal Cargo Units —	10 SCU	10 SCU	10 SCU
Internal Cargo Capacity —	500 mt	500 mt	500 mt
Cargo Transport Capacity —	200,000 mt	410,000 mt	500,000 mt
Landing Capability —	None	None	None

Equipment Data:

Control Computer Type —	R4M	R4M	R4M
Transporters —			
Standard 9-person	1	1	1
Cargo	1	1	1

Other Data:

Crew —	34	36	32
Shuttlecraft —	1	1	1

Engines And Power Data:

Total Power Units Available —	33	35	44
Movement Point Ratio —			
Unloaded	3/1	3/1	4/1
Loaded	5/1	5/1	7/1
Warp Engine Type —	RWD-1	RWD-1	RWF-1
Number —	2	2	2
Power Units Available —	16	16	18
Stress Charts —	O.O	O.O	G.L
Maximum Safe Cruising Speed —			
Unloaded	Warp 6	Warp 6	Warp 7
Loaded	Warp 4	Warp 4	Warp 4
Emergency Speed —			
Unloaded	Warp 7	Warp 7	Warp 9
Loaded	Warp 5	Warp 5	Warp 6
Impulse Engine Type —	RIB-1	RIC-2	RID-2
Power Units Available —	2	4	8

Weapons And Firing Data:

	None	None	None
--	------	------	------

Shields Data:

Deflector Shield Type —	RSG	RSG	RSK
Shield Point Ratio —	1/1	1/1	1/2
Maximum Shield Power —	12	12	12

Combat Efficiency:

D-	47.8	51.2	47.2
WDF-	0	0	0

Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: C

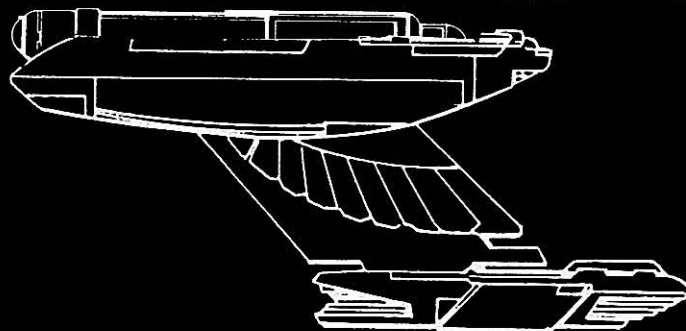
Major Data Source: Triangle Sector Intelligence

One of the oldest transport ships in known space, the J-3 Class tug is designed to tow cargo arranged in pods attached one to the other in a chain behind the ship.

About Stardate 1/90, the Type 2 was introduced into service; although it does not have the cargo towing capabilities of later models, it is still in production, because of its reliability and the need for a vessel to move cargos in its specific tonnage range. By Stardate 1/98, the class had undergone several unsuccessful modifications attempting to allow the design to use the RWD-1 warp engine to its fullest capacity; the Type 9 altered the hull configuration, relieving the problem. The Type 9 also had slightly more maneuvering power, greater superstructure strength, and the ability to tow twice as much cargo. The Type 14, capable of pulling 25% more cargo than the Type 9 at higher warp speeds, mounts more efficient shields and engines.

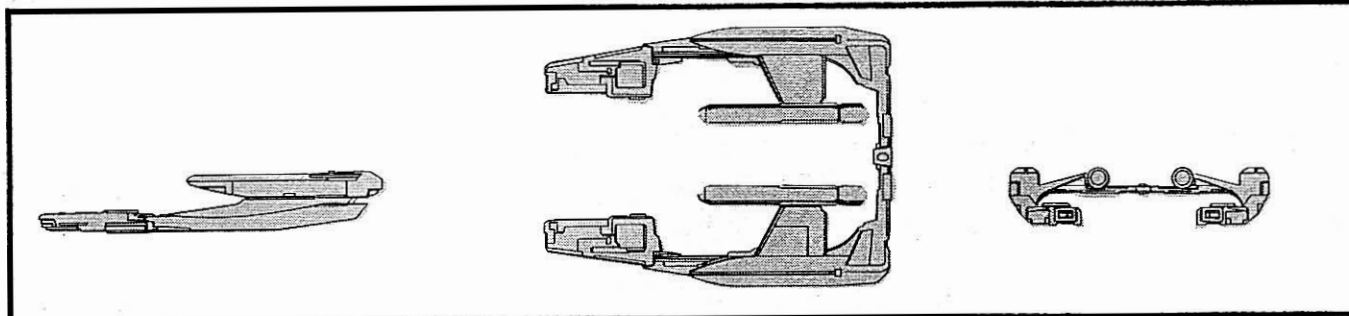
Current production estimates show about 15 of these vessels being produced a year. Of the approximately 700 vessels built, about 500 remain in service with the navy. Something over 100 have been sold to the civil sector.

The class is named from the Romulan *ustalam stelas* (lifter of stars), in reference to its towing capabilities.





J-4 (Baydron) Class V Transport



J-4 (Baydron) CLASS V TRANSPORT

Construction Data:		Type 1
Model Numbers —		1/96
Date Entering Service —		250
Approx. Number Constructed —		
Hull Data:		
Superstructure Points —		8
Damage Chart —		C
Size		
Length —		200 m
Width —		150 m
Height —		35 m
Weight —		55,600 mt
Cargo		
Internal Cargo Units —		60 SCU
Internal Cargo Capacity —		3000 mt
Cargo Transport Capacity —		160,000 mt
Landing Capability —		None
Equipment Data:		
Control Computer Type —		R4M
Transporters —		
Standard 9-person		1
Emergency 20-person		
Cargo		1
Other Data:		
Crew —		32
Passengers —		40
Shuttlecraft —		1
Engines And Power Data:		
Total Power Units Available —		36
Movement Point Ratio —		
Unloaded		2/1
Loaded		4/1
Warp Engine Type —		RWC-2
Number —		2
Power Units Available —		15
Stress Charts —		N/Q
Maximum Safe Cruising Speed —		
Unloaded		Warp 6
Loaded		Warp 4
Emergency Speed —		
Unloaded		Warp 8
Loaded		Warp 6
Impulse Engine Type —		RIB-3
Power Units Available —		5
Weapons And Firing Data:		None
Shields Data:		
Deflector Shield Type —		RSD
Shield Point Ratio —		1/1
Maximum Shield Power —		8
Combat Efficiency:		
D-		44.9
WDF-		.0

Notes:

Known Sphere Of Operation: Empire-wide use

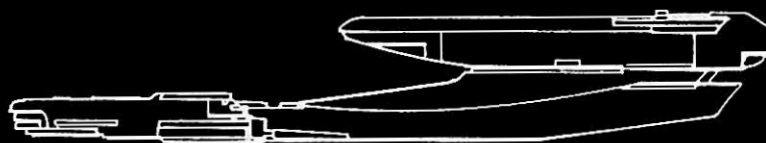
Data Reliability: B

Major Data Source: Triangle Sector Intelligence

The J-4, which transports cargo in pods that are pushed from behind, entered service about Stardate 1/96 and has not been modified. These vessels are extremely reliable and easy to maintain, which makes them very cost effective. It carries slightly more cargo and is more maneuverable than the J-8 but is not as fast; it requires fewer crewmembers and has facilities for 40 passengers. Of the more than 240 built for the navy, about 180 remain in service.

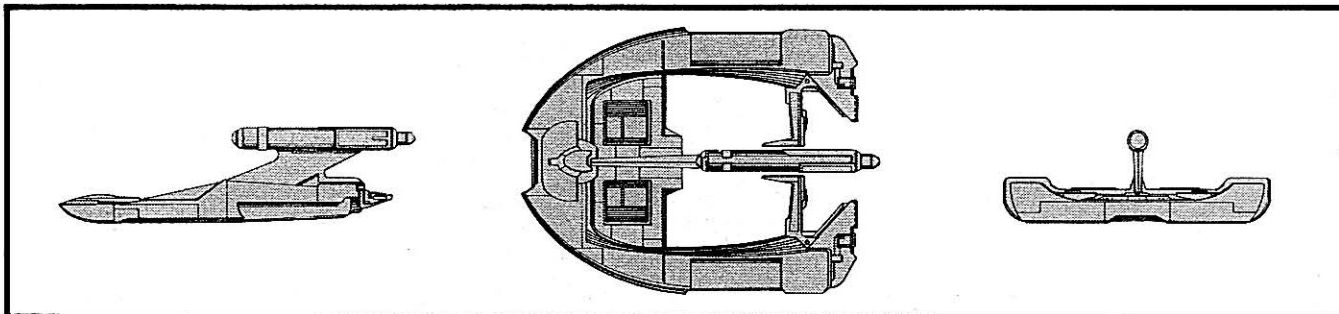
So popular is this ship that its manufacturer began selling it to private industry within six months after its delivery to the navy. It is estimated that over 250 of these vessels have been sold to private industry, and several of these are owned and operated by private concerns located in the Triangle. Production capacity of this vessel is estimated at ten per year for the navy and 20 per year for private industry.

The class is named to honor Senator Baydron, the senator from Messala, who was instrumental in establishing the current trade accords.





J-8 (Moorabbin) Class IV Transport



J-8 (Moorabbin) CLASS IV TRANSPORT

Construction Data:

Model Numbers—	Type 1
Date Entering Service—	2/00
Approx. Number Constructed—	202

Hull Data:

Superstructure Points—	10
Damage Chart—	C
Size	
Length—	201 m
Width—	152 m
Height—	52 m
Weight—	35,700 mt

Cargo

Internal Cargo Units—	10 SCU
Internal Cargo Capacity—	500 mt
Cargo Transport Capacity—	150,000 mt
Landing Capability—	None

Equipment Data:

Control Computer Type—	R3M
Transporters—	
Standard 9-person	2
Small cargo	1

Other Data:

Crew—	67
Shuttlecraft—	3

Engines And Power Data:

Total Power Units Available—	20
Movement Point Ratio—	
Unloaded	2/1
Loaded	4/1
Warp Engine Type—	RWD-1
Number—	1
Power Units Available—	15
Stress Charts—	N/O
Maximum Safe Cruising Speed—	
Unloaded	Warp 7
Loaded	Warp 5
Emergency Speed—	
Unloaded	Warp 8
Loaded	Warp 6
Impulse Engine Type—	RIC-2
Power Units Available—	4

Weapons And Firing Data:

	None
Shields Data:	
Deflector Shield Type—	RSJ
Shield Point Ratio—	1/1
Maximum Shield Power—	15

Combat Efficiency:

D-	48.8
WDF-	0

Notes:

Known Sphere Of Operation: Empire-wide use

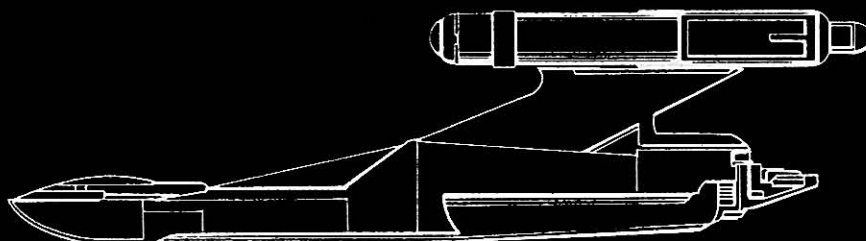
Data Reliability: A

Major Data Source: Vessel in Star Fleet possession

The J-8, which tows cargo pods similar to but smaller than those towed by the J-3, entered service about Star-date 2/00 and has not been changed or modified since. Of the approximately 200 ships built for the navy, more than 160 remain in service.

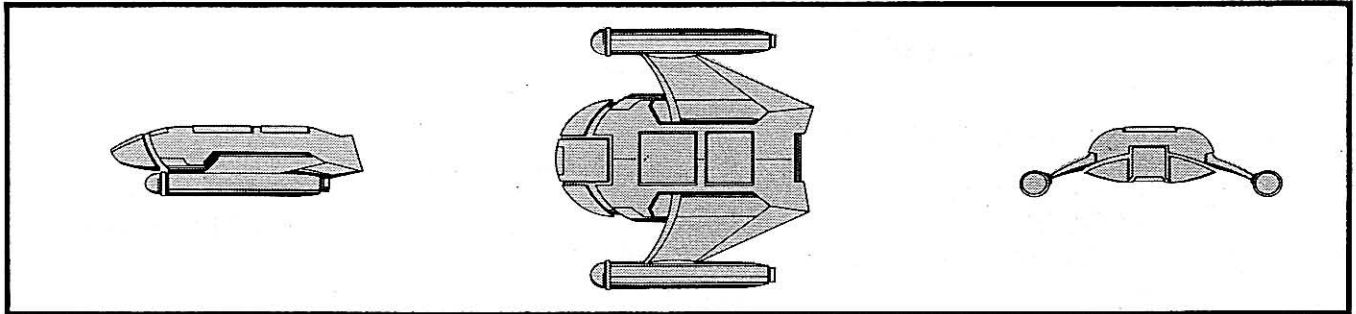
This vessel has been so successful that the manufacturer began placing them in the civil sector shortly after their introduction, and they are probably the most common small transport vessels built by the Romulans to date. It is estimated that over 250 ships of this type have been manufactured and sold to private industry. Several of these are known to be owned and operated out of the Triangle. With current production capacity estimated at 15 per year for the navy and 20 per year for the civil sector, these ships will be a common sight for many years to come.

The class takes its name from Moorabbin, a wellknown trade center on Gorwah.





H-4 (Praetor) Class II Warpshuttle



H-4 (PRAETOR) CLASS II WARPSHUTTLE

Construction Data:		
Model Numbers —	Type 1	Type 2
Date Entering Service —	1/90	2/10
Approx. Number Constructed —	1400	1000
Hull Data:		
Superstructure Points —	2	2
Damage Chart —	C	C
Size		
Length —	20 m	20 m
Width —	21 m	21 m
Height —	6 m	6 m
Weight —	9970 mt	10,840 mt
Cargo		
Cargo Units —	10 SCU	10 SCU
Cargo Capacity —	500 mt	500 mt
Landing Capability —	Yes	Yes
Equipment Data:		
Control Computer Type —	R2M	R3M
Transporters —	None	None
Other Data:		
Crew —	2	2
Passengers —	8	8
Engines And Power Data:		
Total Power Units Available —	14	20
Movement Point Ratio —	1/1	1/1
Warp Engine Type —	RWA-1	RWA-2
Number —	2	2
Power Units Available —	6	9
Stress Charts —	M/O	J/M
Maximum Safe Cruising Speed —	Warp 6	Warp 7
Emergency Speed —	Warp 7	Warp 8
Impulse Engine Type —	RIA-2	RIA-2
Power Units Available —	2	2
Weapons And Firing Data:		
	None	None
Shields Data:		
Deflector Shield Type —	RSA	RSA
Shield Point Ratio —	1/1	1/1
Maximum Shield Power —	5	5
Combat Efficiency:		
D- —	29.8	38.3
WDF- —	0	0

Notes:

Known Sphere Of Operation: Empire-wide use

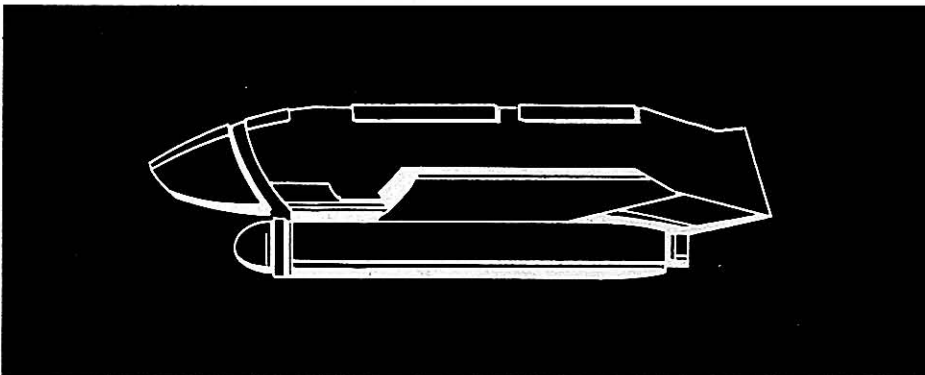
Data Reliability: A

Major Data Source: Vessel in Star Fleet possession; Triangle Sector Intelligence

The more popular of the two major warpshuttles, the *H-4* lives up to its name (*Praetor* translates as 'leader'). Its spacious quarters are the most luxurious of all Romulan shuttles, and, therefore, makes for the most desired and comfortable travel. With a crew of two and passenger facilities for eight, it is considered to be large for the mission requirements. It is found either ground-based or attached to an outpost or orbital station, probably due to the vessel's size, but some are known to be carried aboard Class V or larger vessels. The *H-4* carries out courier and VIP transport duties for both the Navy and government agencies throughout the Empire; as it is not armed, it is not usually seen in sensitive areas.

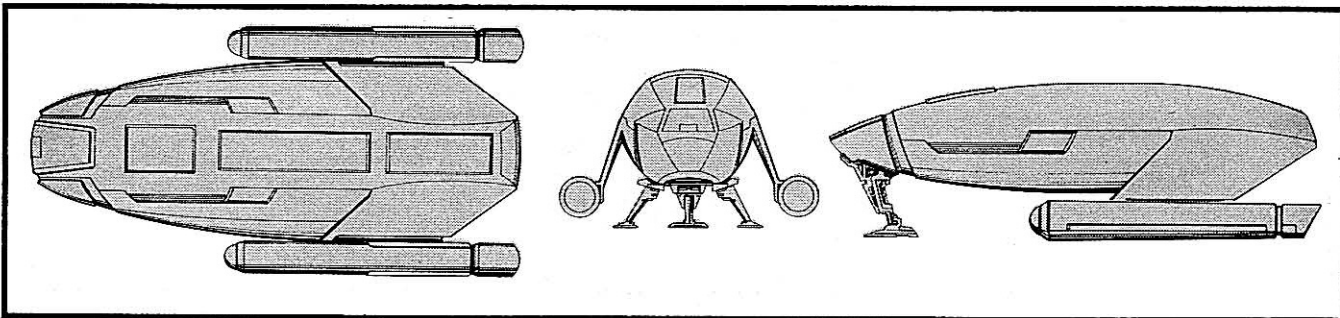
Production of the Type 1 appears to have slowed drastically after the introduction of the Type 2. Sources report that as more and more of the Type 2s became available, the Type 1s were taken out of production, and those existing models were refit and modified as Type 2s. The Type 2s use a newer, lighter version of the same engine, which requires less space and allows for more room in the crew compartments.

Of the approximately 2500 *H-4* warpshuttles built, about 2,000 are still in service. About 30% of the remaining vessels have been lost or destroyed; another 40% are in reserve fleets. By best count, at least 28 Type 1s and 121 Type 2s are operating within the civil sector. Current production capabilities are estimated to add an additional 50 Type 2s per year to the number in service.





H-5 (Ras Lovah) Class I H-5 Warpshuttle



H-5 (Ras Lovah) CLASS I H-5 WARPSHUTTLE

Construction Data:		
Model Numbers —	Type 1	Type 3
Date Entering Service —	1/97	2/14
Approx. Number Constructed —	850	500
Hull Data:		
Superstructure Points —	1	1
Damage Chart —	C	C
Size		
Length —	38 m	38 m
Width —	20 m	20 m
Height —	12 m	12 m
Weight —	4850 mt	4650 mt
Cargo		
Cargo Units —	16 SCU	16 SCU
Cargo Capacity —	900 mt	900 mt
Landing Capability —	Yes	Yes
Equipment Data:		
Control Computer Type —	R1M	R1M
Transporters —		
Standard 3-person	1	1
Other Data:		
Crew —	2	2
Passengers —	14	14
Engines And Power Data:		
Total Power Units Available —	8	10
Movement Point Ratio —	1/3	1/3
Warp Engine Type —	RWA-1	RWA-2
Number —	1	1
Power Units Available —	6	8
Stress Charts —	K/M	J/L
Maximum Safe Cruising Speed —	Warp 7	Warp 7
Emergency Speed —	Warp 8	Warp 8
Impulse Engine Type —	RIA-2	RIA-2
Power Units Available —	2	2
Weapons And Firing Data:		
	None	None
Shields Data:		
Deflector Shield Type —	RSA	RSA
Shield Point Ratio —	1/1	1/1
Maximum Shield Power —	5	5
Combat Efficiency:		
D-	42.4	50.9
WDF-	0	0

Notes:

Known Sphere Of Operation: Empire-wide use

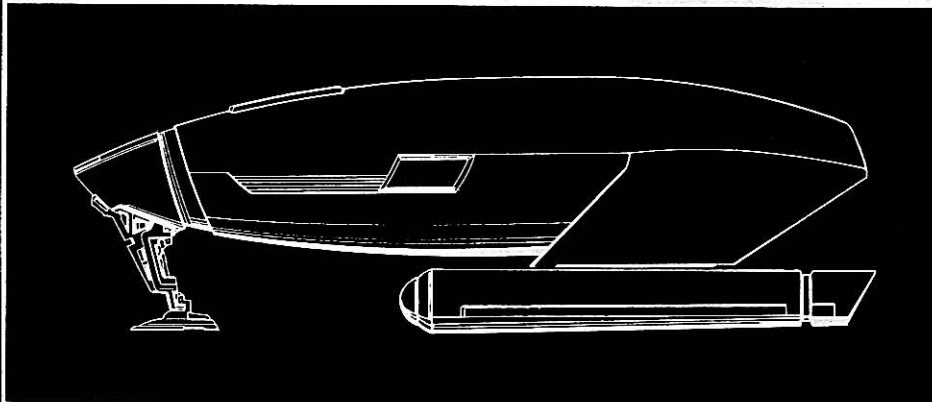
Data Reliability: A

Major Data Source: Types 1 and 3 have been examined by Star Fleet personnel; Triangle sector intelligence

The H-5 warpshuttle, one of the most common types found in the Romulan Empire, is used to transport passengers and act as a courier. Although its exterior dimensions would make it seem to have a roomy interior, it really is very cramped because of its large cargo bay. Its small crew and passenger quarters reportedly make the ship unpopular with travelers and crews alike; when it is used as a courier, the crew are said to often occupy the unused staterooms. Named for an early explorer of Romulus, this craft perpetuates the tradition that adventurers and explorers neither live nor travel in comfort. Because of Romulan need to conserve resources, and because it is unnecessary to maintain an armament system for vessels that are exposed to the hazards of the border areas for only a brief period, these ships are unarmed.

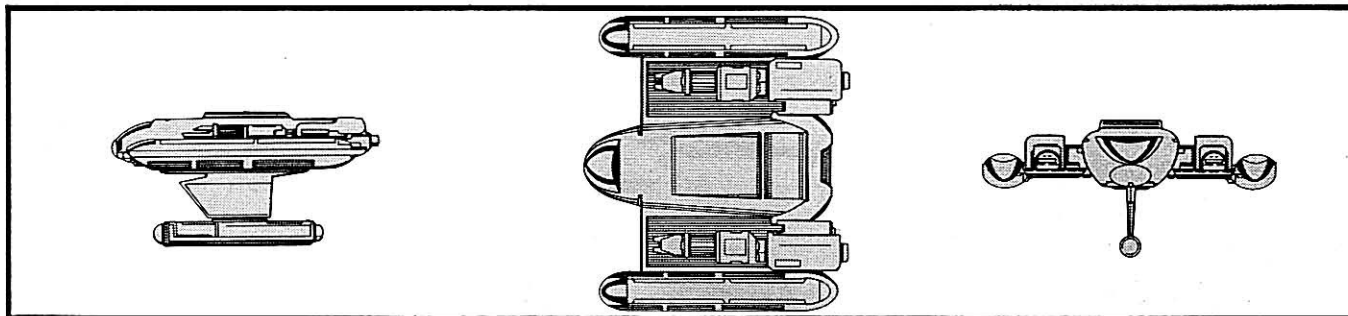
The Type 3 appears to have completely replaced the Type 1s within the fleet, but some Type 1s still remain in reserve fleets. The newer model has a more powerful warp engine and impulse engine, making operation of the ship more efficient. The Type 2 appears to have been a failure.

Of the 1300 H-5s built, about 800 serve in the fleet, about 100 in reserve fleets, and 300 or so have been lost or destroyed. Best estimates show 86 Type 1s and 22 Type 2s operating in the civil sector; two Type 1s operate exclusively in the Triangle.





E-5 (Little Nest) Class VII Repair Tender



E-5 (Little Nest) CLASS VII REPAIR TENDER

Construction Data:

Model Numbers —	Type 1
Date Entering Service —	2/04
Approx. Number Constructed —	250

Hull Data:

Superstructure Points —	10
Damage Chart —	B
Size	
Length —	102 m
Width —	110 m
Height —	50 m
Weight —	46,100 mt

Cargo

Cargo Units —	300 SCU
Cargo Capacity —	15,000 mt
Landing Capability —	None

Equipment Data:

Control Computer Type —	RCC
Transporters —	
Standard 9-person	2
Small cargo	2
Large cargo	2

Other Data:

Crew —	114
Shuttlecraft —	12

Engines And Power Data:

Total Power Units Available —	20
Movement Point Ratio —	2/1
Warp Engine Type —	RWD-1
Number —	1
Power Units Available —	15
Stress Charts —	N/O
Maximum Safe Cruising Speed —	Warp 7
Emergency Speed —	Warp 8
Impulse Engine Type —	RIB-3
Power Units Available —	5

Weapons And Firing Data:

None

Shields Data:

Deflector Shield Type —	RSD
Shield Point Ratio —	1/1
Maximum Shield Power —	8

Combat Efficiency: D-
WDF-

43.6
0

Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: A

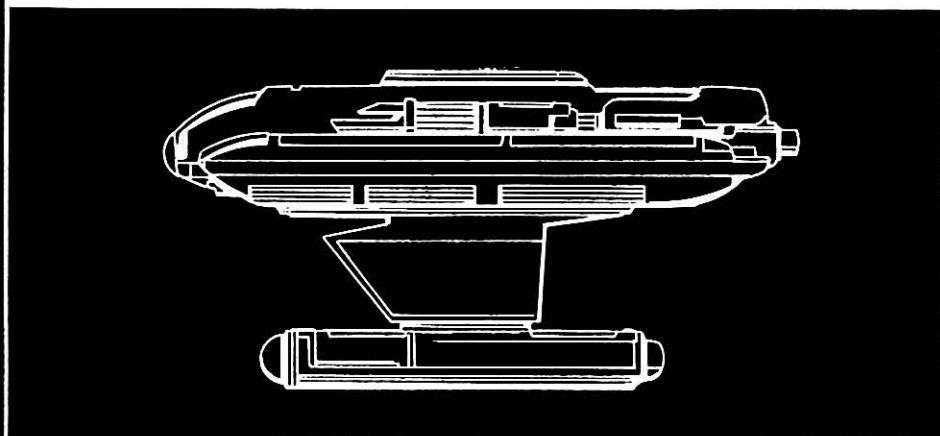
Major Data Source: Vessel in Star Fleet possession

The E-5 repair tenders, which came into service about Stardate 2/04, are fleet service and support ships that extend war vessels' time-on-station and that facilitate frontline repair during war. All Romulan fleets contain several of these useful vessels so that in-transit repairs are possible for individual ships. It is a common sight at all border outposts that maintain an F-2 repair and construction facility.

The E-5 uses its two retractable arms to position large components and place them in their mountings. Once placed, the components can be fitted properly by the small work pods listed as shuttlecraft in the tender's statistics. These small pods also have retractable arms that are used for final fitting or positioning. The pods are also capable of completing most external repair jobs with the wide array of attachments for their little arms. If more detailed work than the pod can perform is required, speciallysuited engineers will finish the job.

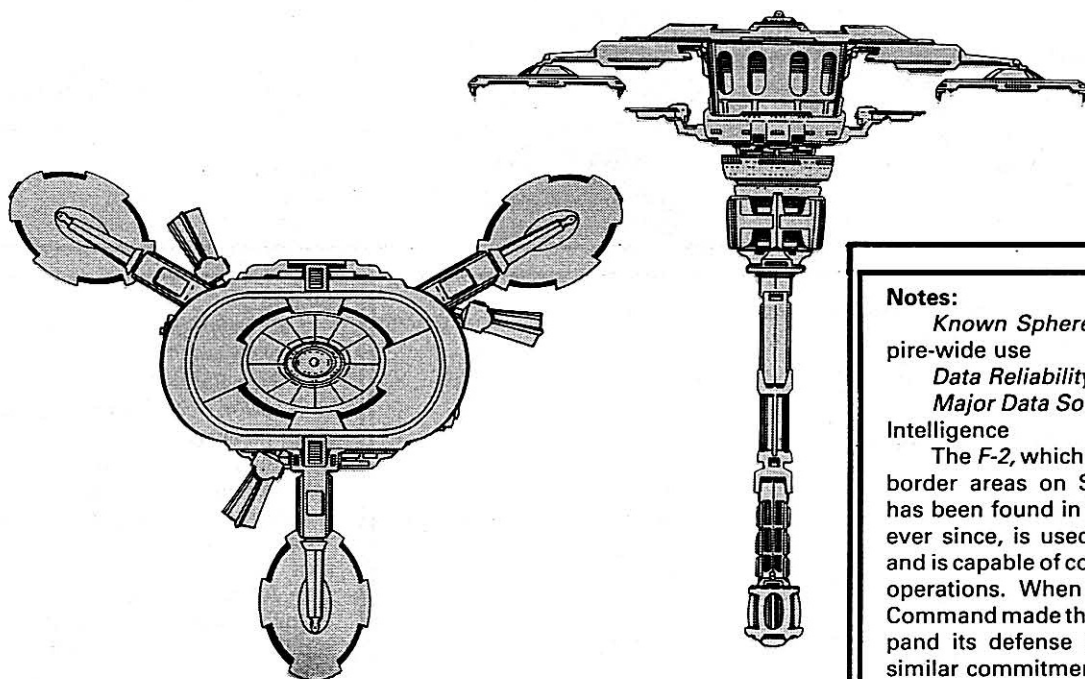
Current production estimates show about nine of these vessels being built per year, but this is a peacetime production goal that would be greatly increased during wartime. Of the approximately 250 built, about 190 remain in service. About 30 have been sold to the civil sector, four of which are operated in conjunction with the independent F-2 facility orbiting Freeman's Port in the Triangle.

The class is named from the Romulan *narvasam'al* (little nest).





F-2 (Nestar) Class Repair Facility



F-2 (Nestar) CLASS REPAIR FACILITY

Construction Data:

Model Numbers —
Date Entering Service —
Approx. Number Constructed —

Type 1	Type 7
1/85	2/02
30	60

Hull Data:

Superstructure Points —
Damage Chart —
Size

Type 1	Type 7
4	6
C	C
780 m	780 m
800 m	800 m
127,000 mt	141,000 mt

Diameter —
Height —
Weight —

Storage
Cargo Units —
Storage Capacity —

Type 1	Type 7
200 SCU	200 SCU
10,000 mt	10,000 mt

Equipment Data:

Transporters —
Standard 9-person
Emergency 20-person
Cargo

Type 1	Type 7
2	2
1	1
1	1

Other Data:

Crew —
Other Personnel —
Shuttlecraft —

Type 1	Type 7
163	178
150	220
2	2

Engines And Power Data:

Total Power Units Available —
Impulse Engine Type —
Power Units Available —

Type 1	Type 7
16	16
RIPG-1	RIPG-1
16	16

Weapons And Firing Data:

Type 1	Type 7
None	None

Shields Data:

Deflector Shield Type —
Shield Point Ratio —
Maximum Shield Power —

Type 1	Type 7
RSD	RSF
1/1	1/1
6	15

Combat Efficiency:

D-WDF-	Type 1	Type 7
37.2	53.1	
0	0	

Notes:

Known Sphere Of Operation: Empire-wide use

Data Reliability: B

Major Data Source: Klingon Sector Intelligence

The F-2, which first appeared along border areas on Stardate 1/8504 and has been found in increasing numbers ever since, is used to repair starships and is capable of complete construction operations. When the Romulan High Command made the commitment to expand its defense posts, they made a similar commitment to create frontline construction and repair facilities, because this capability would allow their ships to operate for longer periods of time in or near enemy sectors, giving a constant military presence there.

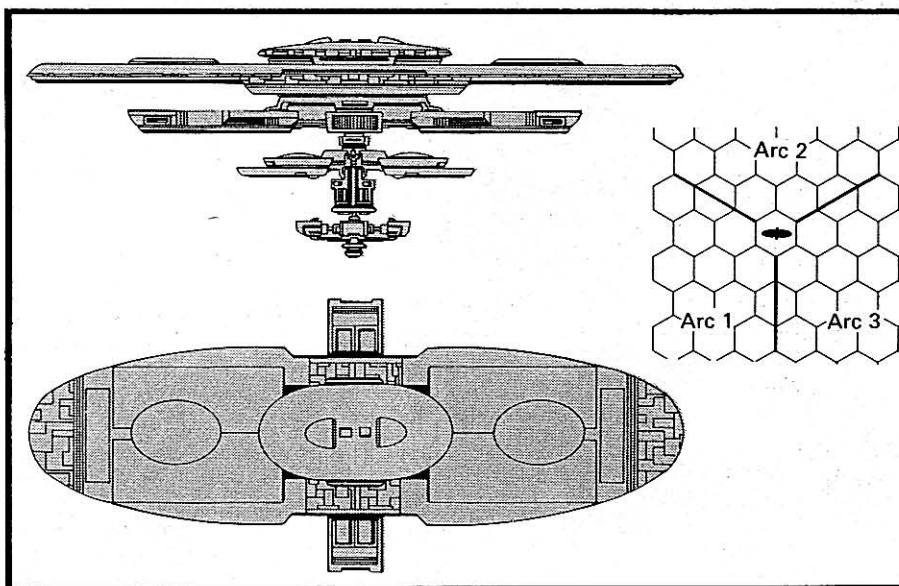
The Type 1 facility was introduced into service about Stardate 1/85. The Type 7, introduced about Stardate 2/02, carried a slightly larger crew complement, had increased passenger facilities, and mounted more powerful shielding systems. Although known as a mobile repair facility, they are not capable of travelling any distance under their own power. They have only correctional navigation thrusters that allow them to maintain whatever orbital position is necessary. Most actually have been built in place, though some have been transported to their present locations.

Of the approximately 90 built, most are still on station and functioning at normal capacity. An additional F-2 was built in orbit around Freeman's Port in the Triangle; operated by a private concern, it takes advantage of that planet's port to draw customers.

The class is named from the Romulan *narvasam stelas* (nest of stars), in reference to its construction role in the Road to the Stars.



X-3 (Aviary) Border Defense Outpost



X-3 (Aviary) BORDER DEFENSE OUTPOST

Construction Data:					
Model Numbers—	Type 1	Type 3	Type 6	Type 7	
Date Entering Service—	1/80	1/99	2/16	2/20	
Approx. Number Constructed—	80	88	26	4	
Hull Data:					
Superstructure Points—	30	41	58	70	
Damage Chart—	C	C	C	C	
Size					
Length—	498 m	498 m	498 m	498 m	
Width—	208 m	208 m	208 m	208 m	
Height—	152 m	152 m	170 m	170 m	
Weight—	800,000 mt	910,000 mt	1,100,000 mt	1,310,000 mt	
Storage					
Cargo Units—	600 SCU	600 SCU	600 SCU	600 SCU	
Storage Capacity—	30,000 mt	30,000 mt	30,000 mt	30,000 mt	
Equipment Data:					
Transporters—					
Standard 9-person	4	4	4	4	
Emergency 20-person	2	2	2	2	
Cargo	2	2	2	2	
Cloaking Device Type—	None	None	None	None	
Other Data:					
Crew—	225	240	272	296	
Other Personnel—	200	200	240	240	
Assigned Shuttlecraft—	10	12	16	16	
Generators And Power Data:					
Total Power Units Available—	64	88	144	144	
Matter/Antimatter Generator Type—	RMAPG-1	RMAPG-2	RMAPG-4	RMAPG-4	
Power Units Available—	48	72	120	120	
Impulse Generator Type—	RIPG-1	RIPG-1	RIPG-2	RIPG-2	
Power Units Available—	16	16	24	24	
Weapons And Firing Data:					
Beam Weapon Type—	RB-3	RB-8	RB-10	RB-11	
Number—	12, in 6 banks of 2	12, in 6 banks of 2	12, in 6 banks of 2	12, in 6 banks of 2	
Firing Arcs—	4 per arc	4 per arc	4 per arc	4 per arc	
Firing Chart—	J	N	U	V	
Maximum Power—	6	6	8	9	
Damage Modifiers—					
+3	—	(1 – 4)	(1 – 8)	(1 – 10)	
+2	(1 – 6)	(5 – 9)	(9 – 16)	(11 – 16)	
+1	(7 – 10)	(10 – 13)	(17 – 20)	(17 – 21)	
Missile Weapon Type—	None	None	None	RP-3	
Number—	—	—	—	9	
Firing Arcs—	—	—	—	3 per arc	
Firing Chart—	—	—	—	Q	
Power To Arm—	—	—	—	1	
Damage—	—	—	—	10	
Plasma Weapon Type—	None	None	RPL-3	RPL-3	
Number—	—	—	3	3	
Firing Arcs—	—	—	1 per arc	1 per arc	
Firing Chart—	—	—	T	T	
Power To Arm—	—	—	8	8	
Damage—	—	—	See Chart	See Chart	
Shields Data:					
Deflector Shield Type—	RSG	RSJ	RSN	RSO	
Shield Point Ratio—	1/1	1/1	1/2	1/3	
Maximum Shield Power—	10	13	15	15	
Combat Efficiency:					
D-WDF—	147.8	207.3	516.3	739.0	
WDF—	9.6	49.2	123.9	185.4	

Notes:

Known Sphere Of Operation: Borders

Data Reliability: B

Major Data Source: Border patrol reports; Triangle Sector Intelligence

Soon after the signing of the treaties that ended the Romulan/UFP War, the Romulan High Command began to establish border outposts along the Neutral Zone to insure that no vessels entered Romulan space.

From the outset, it was obvious that these stations would have to be built on location. This meant that construction, maintenance, and quartering facilities would have to be established at the same time. Construction completed, these facilities were left in place to create a broader and more self-sustaining base from which to work. Because of this, a Romulan outpost resembles a spaceborn city, with its many structures and high levels of traffic.

The officers and crew of these outposts are the best the empire has to offer. They support several outlying listening posts and a small detachment of warships. The outposts bordering the Triangle and the Neutral Zone support entire fleets.

On Stardate 1/8008, the first of 80 such outposts was made operational at 8.2S 7.3E, anchoring the arc of the Neutral Zone. From the first, it was capable of gathering intelligence and monitoring ship movements well past the boundaries of the Zone itself, as well as throughout the Imperial Klingon States inside the Triangle.

The commissioning of the Type 6 on Stardate 2/1609 signalled a new era. This station, located at 12.6S 7.5E at the sensitive spinward tip of the Triangle, was powered by the new RMAPG-4 engine, which boasted an increase in power of 67%, and used the RIPG-2 instead of the older RIPG-1. The weaponry was improved by upgrading the disruptors and by adding the new RPL-3 plasma weapons. The shielding was upgraded and the superstructure strength was increased by 40%.

Beginning Stardate 2 2007, the four outposts bordering the Triangle were refitted. Known as the Type 7, they also have improved shielding and an increased superstructure. Refit of all Type 1s and type 3s is projected to be completed by Stardate 2/2606.

The class is named from the Romulan *vas'calanam* (territory of birds).

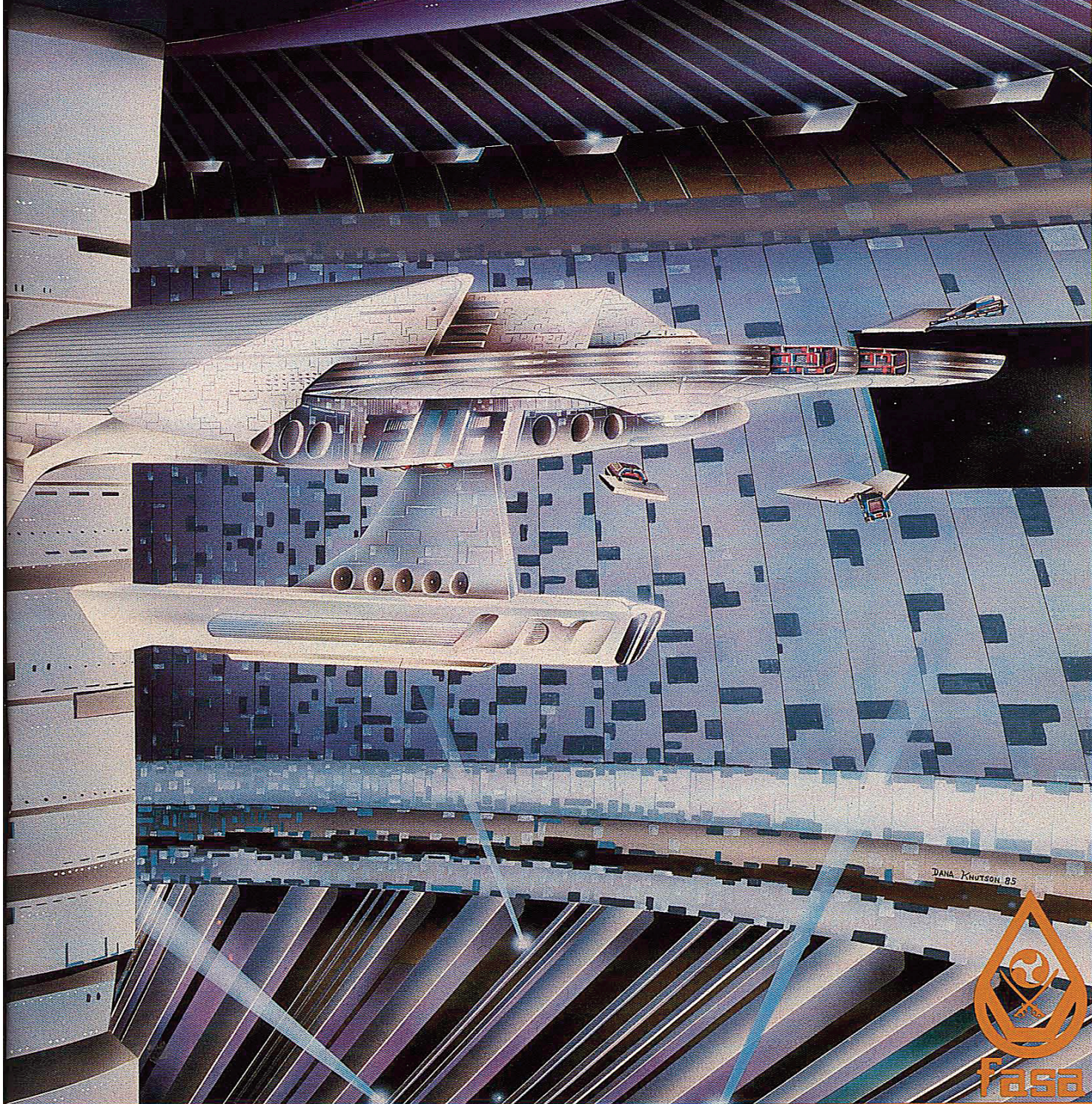
See attached diagram for firing arcs.

A supplement for use with
STAR TREK
THE ROLE PLAYING GAME

Second Edition

2204

SHIP CONSTRUCTION MANUAL



DANA KHUTSON, 85



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Introduction To Warship Design

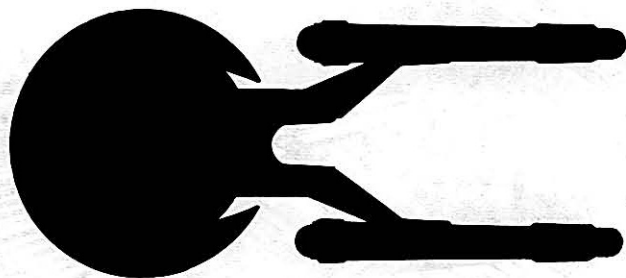
This supplement for **STAR TREK: The Role Playing Game** presents the statistics and game data for the warp engines, the impulse engines, the ships' computers, the shields, the hulls, the weapons, and the superstructure requirements for the starships of the **STAR TREK** universe. The system presented here will allow players and gamemasters to design their own ships for the UFP, the Klingon Empire, the Romulan Star Empire, the Gorn Alliance, and the Orion Colonies.

This book represents a major redesign of the tables from the first edition. Much new information has been added to the tables, and the original design system has been streamlined and simplified. At the time the first edition of these tables was published, The the **STAR TREK III Starship Combat Role Playing Game** had not yet been published, and so they naturally were not organized to make construction for that supplement easy. This edition restructures and reformats the data, adding new information to make ship construction a logical extension of all the rules and supplements that have already been printed for **STAR TREK** starships.

In this book, Starship Tactics gamers will find a system for comparing the Combat Efficiency of all starships, from the impressive *Excelsior* to the tiniest armed warpshuttle. The system allows players to pick and choose engines, shields, weapons, computer, and superstructure strength to create warships of any class or type desired. It also allows gamers to create evenly-balanced sides for multi-ship and multi-player games.

CONTENTS OF THIS BOOK

The first sections are those that pertain to all races and to ship construction in general, including descriptions of the to all races and to ship construction in general, including descriptions of the Combat Efficiency System. Following this are the data tables for weapons, shields, engines, and so on, organized so that all of the information for each race is presented in the same place. The tables are in the same sequence as the blanks on the *Ship Construction Form*, which guides the gamer through the ship construction process.



CONSTRUCTION TABLE TERMS

The following list defines and describes the terms used in the construction of vessels for starship combat. Some of these terms are to be found heading columns in the various Ship Construction Tables, and others pertain to the Ship Data Sheets in the various recognition manuals. Where a term is associated with particular units of measure, these are given.

CLASS

This number is an indication of the mass of a ship, its tonnage. The higher the class, the greater the ship's tonnage. The relationship between class and tonnage is not constant. For very low class numbers, the tonnage range is relatively small, and for very high class numbers, the tonnage range is relatively large; only in the middle of the class numbers are the tonnage ranges constant, as shown in the table. Most engines and shields are effective on certain classes of ships, as shown by their engine efficiency ratings and Shield Efficiency Ratings. Some weapons are restricted to certain classes of ships, because of the amount of computer support and superstructure required.

SHIP CLASSES

Class	Mass (mt)
I	0 - 5
II	5 - 15
III	15 - 25
IV	25 - 40
V	40 - 60
VI	60 - 80
VII	80 - 100
VIII	100 - 120
IX	120 - 140
X	140 - 160
XI	160 - 180
XII	180 - 210
XIII	210 - 240
XIV	240 - 300
XV	300 - 350
XVI	350 - 400
XVII	400 - 450
XVIII	450 - 500
XIX	500 - 600
XX	600 - 700

COMBAT EFFICIENCY (CE)

This number rates a ship's performance in combat; the higher the number, the more effective the ship in a head-to-head conflict. It is a measure of how the ship uses the power produced by its engines, the strength of its superstructure and deflector shielding, and the overall potency of its weapons.

CONTROL COMPUTER REQUIREMENT

Each engine, weapon, and shield generator aboard a ship is controlled by the ship's control computer. The more complex the equipment, the more sophisticated the computer must be. The Computer Requirement of the equipment is one of the three factors limiting ship construction. Although the computers weigh a very small amount in comparison to most ships, there is a range of Ship Classes for which each computer type is suitable, either because equipment needed to run a ship of a certain size is too complex or because the computer would be vastly overpowered for the equipment available.

DAMAGE

This number represents the damage done by a successful hit with a beam or missile weapon. The greater this number, the greater the damage. The damage of a beam weapon equals the amount of power put into it and any damage modifiers; thus, this number is not given in the beam weapon charts. The damage of a missile weapon is constant, and so it appears in the missile weapon charts. The damage from a Romulan plasma weapon is a special case, because it depends on the range, and so it is given in a special chart.

DAMAGE MODIFIER

This number is the bonus damage some beam weapons do at various ranges. Damage modifiers emphasize the different ways beam weapons convert power to damage. For most beam weapons, the damage modifiers will be greater at short ranges.

DAMAGE PENETRATION COEFFICIENT (DPC)

This number is a measure of how well a shield will prevent damage from incoming fire. It is related to the maximum shield power and the shield point ratio. The more efficiently a shield generator converts power to shielding (that is, the lower the shield point ratio), the lower the DPC. Because use of the shields reduces the power available for either movement or weapons, the greater the power needed for the generator to perform at maximum effectiveness, the higher the DPC.

DEFENSE FACTOR (D)

This number is a measure of the ship's Superstructure Strength, of the ship's shield strength, and of the efficiency with which the ship converts power to movement and to deflector shielding. The higher this number, the more effective the ship is in defense.

DISPLACEMENT

This number tells how much any piece of equipment or ship weighs. When dealing with ships, there is a direct relationship between a ship's mass and its class (see *CLASS*). When dealing with equipment, the displacement is one of the factors that help control ship design. Because of mass limits, it is impossible to put an enormous warp engine and all the phasers in the world on a warpshuttle. The mass of all pieces of equipment and superstructure must be less than the maximum mass allowed for a particular Ship Class.

FIRING ARC

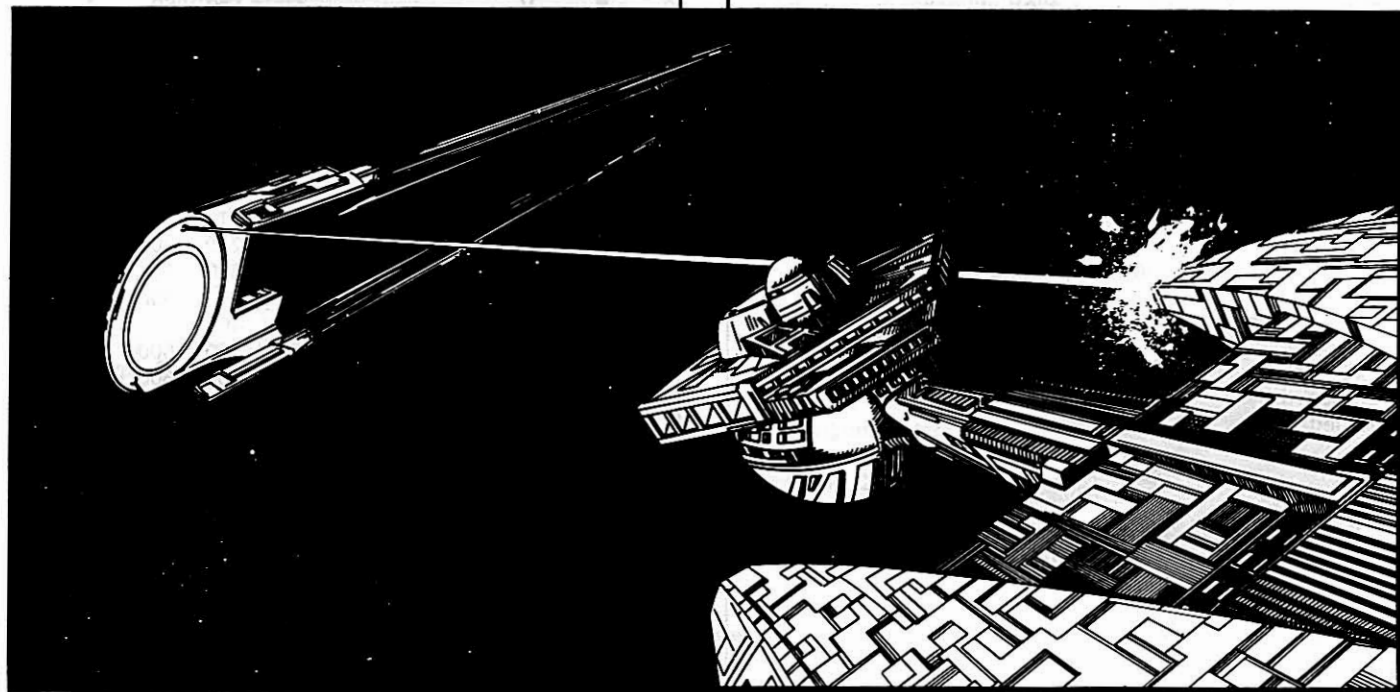
The firing arc is the various directions, given relative to the ship's nose and tail, the ship's weaponry can fire. There are four arcs, somewhat overlapping: forward (*fwd*), aft, port, and starboard (*stbd*).

FIRING CHART

This is the column in the table that is to be used in determining the To-Hit Number for any weapon. This is given as a letter, with column A being used for the least effective weapon and column Y for the most effective.

IMPULSE ENGINE MOVEMENT EFFICIENCY RATING (IER)

This number rates an impulse engine's ability to produce power usable for combat maneuver. The greater this number, the more efficient the engine. The more effectively the engine produces its power (indicated by a lower Movement Point Ratio), the higher the IER will be. The more power an engine produces, the higher the IER will be. The IER is added to the Warp Engine Movement Efficiency Ratings (WER) and the Damage Penetration Coefficient (DPC) to help determine the ship's Power Efficiency.



MAXIMUM BEAM POWER

This is the maximum power that may be put into the beam weapon, and, thus, the unmodified damage the weapon will do. The higher this number, the more devastating the weapon, and, thus, the higher the Weapon Damage Factor.

MAXIMUM WEAPON RANGE

This number tells the maximum distance that a weapon may fire. The more powerful the weapon system, the greater the range and the greater the Weapon Damage Factor. At some ranges, a beam weapon may give damage greater than the power used to arm it. These ranges are indicated in parenthesis for each damage modifier. The maximum weapon range is given in hexes, with each hex equal to 10,000 km.

MAXIMUM SHIELD POWER

This number is the greatest number of shielding points that the ship's shield generators can produce. It is directly related to the amount of power put into the generators. The larger the ship, the less effective any particular shield generator will be in protecting it, because the protection will be spread over a greater surface area. Thus, in general, the higher the Ship Class, the less the Maximum Shield Power for any given generator.

MOVEMENT POINT RATIO (MPR)

This fraction represents the number of power units required to give one movement point. If the fraction is greater than 1, such as 4/1, the engine is using power relatively inefficiently; the greater the fraction, the less efficient the engine's use of power for movement. If the fraction is equal to or less than 1, such as 1/1 or 1/2, then the engine is converting power into movement very efficiently; normally, this is possible only with very light ships. All engines on a ship must have the same movement point ratio, or the stresses produced will tear the ship apart.

POWER EFFICIENCY

This number, part of the calculation of a ship's Combat Efficiency, is a measure of the ship's use of power for movement and shielding. The higher this number, the more efficient the ship in combat. It is determined from the ship's engine efficiencies, Damage Penetration Coefficient, and Shield Efficiency Rating.

POWER TO ARM

This number tells how many power units are required to arm a missile weapon, such as a photon torpedo; unlike the power used to arm beam weapons, this has no effect on the damage done by the missile. More efficient missile weapon systems require only 1 power unit to arm them, whereas the less efficient (including most Klingon designs) require a Power To Arm of 2.

POWER UNITS AVAILABLE

This number tells how much power an engine produces that may be used for combat, either in movement, in shielding, or in weaponry. This is only part of the total power produced by the engine, but Combat Efficiency is not concerned with the power used in the life support systems, the computer control systems, the turbolifts and transporters, and so on. The power units available for the ship is the sum of the power units available from each engine. As could be expected, most warp engines produce far more power than most impulse engines, even if they are only idling at sub-light speeds.

SHIELD EFFICIENCY RATING (SER)

This number tells the relative efficiency of a shield generator; it is the reciprocal of the shield point ratio. The more efficiently the shield generator converts power into shielding, the higher the SER. This number is used directly in calculating Combat Efficiency.

SHIELD POINT RATIO (SPR)

This fraction tells how many shield points a generator may produce from 1 power unit. This number is determined by the generator type, and it does not vary from ship to ship. If the shield point ratio is equal to or greater than 1, such as 1/1 or 3/2, the generator uses power very inefficiently. If the shield point ratio is less than 1, such as 1/2 or 1/4, the generator uses power more efficiently. The smaller the ratio, the greater the generator's efficiency, and the greater the shielding that it will produce from 1 power unit.

STRESS COLUMN

These letters indicate the likelihood of stress to the superstructure and warp engines from emergency heading changes. The first letter, to the left of the slash (/), indicates the column on the Heading Change Stress Chart for the superstructure. The second letter, to the right of the slash, indicates the column for the warp engines. The column used depends on the engine and the Ship Class. In general, Column A indicates that damage is unlikely except at very high warp speeds, and Column R indicates that damage is likely at speeds as low as Warp 2.

SUPERSTRUCTURE REQUIREMENT

The engine and power systems, weapon systems, computer control systems, and shield generator systems require internal bracing to be effective. The amount of this bracing is the Superstructure Requirement of the system. In general, the larger, more complex the system, the larger the Superstructure Requirement. The total of the Superstructure Requirements must be less than the Superstructure Strength (SS) of the ship. Because each point of Superstructure Strength displaces 1500 mt, the Superstructure Requirement is one of the three factors controlling ship design.

SUPERSTRUCTURE STRENGTH (SS)

This number tells how much damage a ship's superstructure can withstand. Damage to the superstructure is subtracted from this number, and so the greater the Superstructure Strength, the more damage a ship can withstand, either from weapons fire or from stress. Engines, shield generators, control computers, and the like may require a minimum Superstructure Strength, which must be taken into account when the ship is constructed. The SS is added to the Power Efficiency when calculating a ship's Combat Efficiency. Obviously, the stronger the superstructure, the more efficient the ship in combat, because the more damage it will withstand. One point of Superstructure Strength is equivalent to internal bracing that displaces 1500 metric tons.

WARP ENGINE MOVEMENT EFFICIENCY RATING (WER)

This number rates an impulse engine's ability to produce power usable for combat maneuver. The greater this number, the more efficient the engine. The more effectively the engine produces its power (indicated by a lower Movement Point Ratio), the higher the WER will be. The more power an engine produces, the higher the WER will be. The WER is added to the Impulse Engine Movement Efficiency Rating (IER) and the Damage Penetration Coefficient (DPC) to help determine the Power Efficiency of a ship's engines.

WEAPON DAMAGE FACTOR (WDF)

This number is a measure of the relative destructive power of a weapon. It takes into account the weapon's maximum range, its ability to hit throughout this range, and the maximum damage it can do. The greater the range of a weapon, the greater the WDF; the greater the chance to hit at any range, the greater the WDF; and the greater the maximum damage, the greater the WDF. For missile weapons, the smaller the Power To Arm, the greater the WDF. The WDF is the most important factor in determining Combat Efficiency.

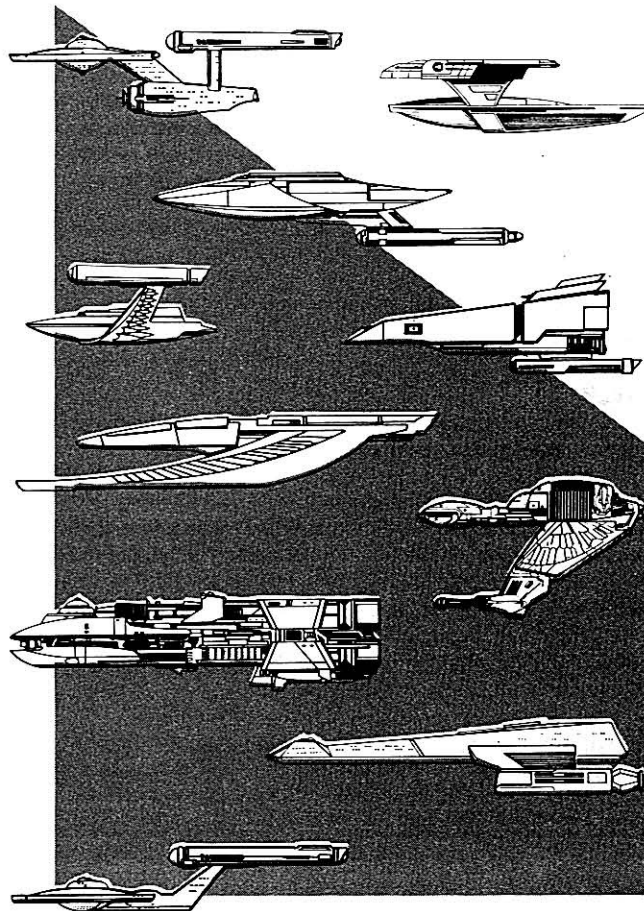
Constructing

NARROW THE FIELD

Because the choices available in ship construction are so many, designing a ship for combat will be a trial-and-error process, which will become easier with practice. At first, until you become familiar with the tables and the way the engines, shields, superstructure, computers, and weapons work together, it will be merely a matter of making variations on designs already published. These variations should be tested in combat to see what the effects are of altering the published stats, and only experience with the ship construction process will make the effects of any one design decision easier to predict beforehand.

Because the choices *are* so many, it is necessary to narrow the field somewhat, if only to keep your sanity. This requires some decision about the general characteristics of the ship that will be played. Will it be fast and very maneuverable, or will it be large and heavily-gunned? This initial choice will give a general *range* of ship classes to choose from. The glossary of *Ship Types* may be of value in this step.

Once this range has been decided upon (its exact limits need not be determined at this time), the tables must be inspected. This will give a basic familiarity with the equipment that may be used on the ship for each of the classes in the range. One or two classes likely will be obviously preferable, which will narrow the choice even more.



SELECT EQUIPMENT

The Ship Construction Form

In selecting the engines, shield generators, and weapons that the ship will carry, two things must be kept in mind. The first is that all the equipment be suitable for the ship class chosen, and the second is that the equipment be suitable for the control computer type chosen. In addition to these two considerations, the designer must keep a record of the Superstructure Requirements for each piece of equipment added to the ship, and the total mass of that equipment.

The Ship Construction Form has been designed to help do this. There are five columns on the form: one each for equipment, class, Superstructure Strength, and Combat Efficiency. The three left-hand columns are for the stats on all the equipment added to the ship, the mass of this equipment, and the value of the SS necessary to have the equipment on the ship at all; once the design is finished, these columns may be used to fill in the most important data on the Ship Data Sheet and the Master Control Panel. The large center section is used for all of the necessary calculations; the results of these calculations usually are put into one of the other columns. The column on the right is used to record the special equipment efficiency stats used in determining the ship's Combat Efficiency.

The form is separated into several parts, one for each major piece of equipment. Each part contains all of the steps needed for any calculations.

Construction Steps

Construction begins with some limiting choices: picking a ship class and a control computer type. Next, the ship's warp engine type and Movement Point Ratio are chosen. Once this has been determined, the choices available for the impulse engine are much easier, and follow immediately. The engine choices are followed by the choice of the ship's shield generator type and Maximum Shield Power. Then, the ship's beam and missile weapons are chosen, and the ship's Superstructure Strength is determined. The final step is to calculate the ship's CE.

MAKE LIMITING DECISIONS

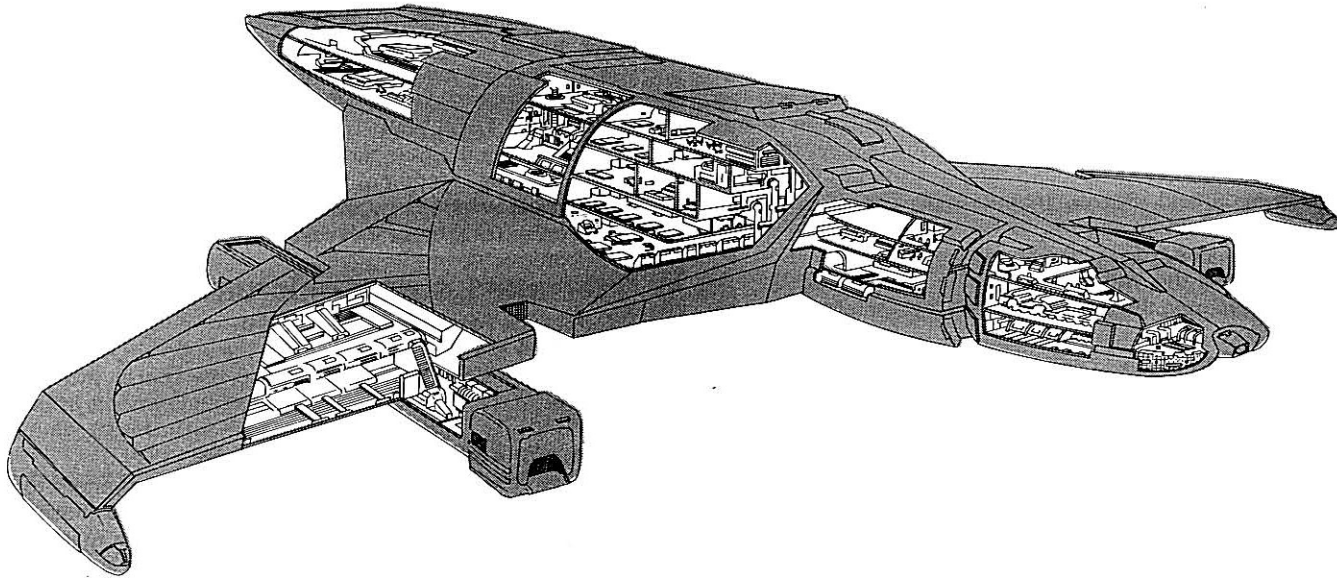
Decide Ship Class

Decide on the class of ship to be built. No progress may be made until this is known, and so go back to Step 1. Continue perusing the tables, making no firm decisions or calculations until you can complete this step with confidence.

Once the ship class has been decided, record the class at the top of the class column on the Ship Construction Form. Next, record the maximum mass allowable for this class; the glossary will help determine this.

Choose Control Computer Type

Deciding on the type of Control Computer a ship will have makes many of the other design choices much easier, because some engines, shields, and weapons may be controlled by computers of a given type. The decision really puts an upper limit on how powerful the ship will be. In general,



the more powerful the ship in terms of Total Power Units Available from the engines, the maneuverability, the strength of shielding, and the range and destructive ability of the weapons, the more complex the computer necessary to do the job.

Making this decision requires you to compare several different tables. Not all ship classes are suitable for every computer type, and so it will be necessary to use the *Computer Types* Table to determine which computers may be used with which ship classes. Then, the *Control Computer Suitability* Table will show which engines, shield generators, and weapons may be controlled by any of the types that are suitable. Once again, it will be a trial-and-error process that may be repeated at a later point if you find that your initial choice is not satisfactory.

Once a control computer type has been chosen, record this in the equipment column of the Ship Construction Form. Record mass in the class column, SS Requirement in the SS column, and Maximum WDF Allowed in the CE column.

CHOOSE WARP ENGINE TYPE

Select Engine Type And MPR

The choice of warp engine type and the number of engines the ship will carry is made by using two tables, the *Movement Point Ratio* Table and the *Control Computer Suitability* Table. First, the *Movement Point Ratio* Table will tell which warp engines may be used on ships of the chosen class, either singly or in tandem. The computer table will tell which of these engines may be controlled by the chosen computer type.

To use the *Movement Point Ratio* Table, find the ship class in the column at the right. In the boxes along this row are listed the various warp engines that may be used at various Movement Point Ratios. To find the choices that are available, use the *Control Computer Suitability* Table.

Use the *Warp Engine Types* Table to select a warp engine type and Movement Point Ratio. To use this table, find the engine type in large bold print. Then, find the part of the table that gives the details on using the number of warp engines chosen, single for one engine and tandem for two. Next, find the row or rows that contain the chosen ship class in the Ship Classes Powered column. The Movement Point Ratio column will tell the various ratios available.

From this data on the choices available, select a warp engine type and Movement Point Ratio.

Record Engine Stats

Record the warp engine type chosen and the Movement Point Ratio in the equipment column of the Ship Construction Form. Record the number of these engines that will be used.

The remaining engine stats are read from the *Warp Engine Types* Table. In the equipment column, record the values given for the Power Units Available, the Stress Columns, the Maximum Safe Cruising Speed, and the Emergency Speed. Record the mass in the class column, the SS Requirement in the SS column, and the WER in the CE column.

CHOOSE IMPULSE ENGINE TYPE

Select Engine Type

In a similar way, the *Movement Point Ratio* Table and the *Control Computer Suitability* Table may be used to pick the impulse engine type, though this is much easier because the Movement Point Ratio is already known. Use the *Movement Point Ratio* Table by cross-indexing the ship class with the Movement Point Ratio chosen. This gives a list of impulse engine types that may be used. Use the computer table to find the types that may be controlled by the computer type chosen; any engine is suitable if it may be controlled by a computer as powerful or less powerful than the one chosen to control the warp engine(s).

Then, use the *Impulse Engine Type* Table to choose a specific impulse engine type by comparing the stats of each engine available. Find the engine type in bold print and use the Movement Point Ratio column to find the appropriate row. Match the Ship Classes Powered with the ship class chosen, and the Control Computer with the type chosen, just to be sure that the engine can be used.

Record Engine Stats

Record the engine type and Power Units Available in the equipment column, the mass in the class column, the SS Requirement in the SS column, and the IER in the CE column.

Calculate Total Power Available

Copy the power units available for all engines into the spaces provided in the calculations column. Total these values, as indicated, and record the Total Power Units Available in the equipment column.

CHOOSE SHIELD GENERATOR TYPE

Select Generator

The *Control Computer Suitability* Table and the *Shield Point Ratio* Table are used in selecting the generator type.

The computer table will give the shield generator types that may be used for a given computer type. Any generator may be chosen that can be controlled by a computer less powerful than the type chosen to run the warp and impulse engines.

The *Shield Point Ratio* Table compares the various shields on ships of a given class. To use this table, find the ship class in the left-hand column and the shield generator type, the Shield Point Ratio, and the SER across the top. Cross-index the ship class and the shield type to read the Maximum Shield Power (non-italics). The greater the Maximum Shield Power, the more protection that a shield generator will afford, and the smaller the Shield Point Ratio, the less power this will take.

By comparing the shield stats, choose a shield generator type.

Record Shield Stats

Record the shield generator type, the Shield Point Ratio, and the Maximum Shield Power in the equipment column. Record the DPC, which is the number in italics just below the Maximum Shield Power, in the CE column.

Use the *Shield Generator Types* Table to find the rest of the shield stats. Find the generator type in the left-hand column, and read the stats in that same row. Record the mass in the class column, the SS Requirement in the SS column, and the SER in the CE column.

Calculate Power Efficiency

Copy the total WER, the IER, the DPC, and the SER into the appropriate spaces in the calculations column. Total the WER, IER, and DPC, as indicated, and multiply the sum by the SER. Record the Power Efficiency (PE) in the CE column.

CHOOSE WEAPON TYPES

Select Weapons

Use the *Beam Weapon Types* Table in selecting the ship's beam weaponry. The table will tell the total WDF that may be controlled by the computer type chosen. Any weapon type and number may be chosen as long as the computer supports the total WDF. Generally there will be no more than two different beam weapons on a ship, but sometimes there will be three and rarely four. A ship with missile weapons will only have one missile weapon type.

The *Beam Weapon Types* Table gives the stats for each beam weapon. Particularly important is the Maximum Beam Power, the Firing Chart, and the mass. To use this table, find the beam weapon type in the left-hand column, and read the stats in that row. Comparing one weapon with another, choose the ship's beam weapon type(s) and numbers. For each weapon or weapon bank, select the Firing Arc.

The *Missile Weapon Types* Table gives the stats for each missile weapon. The important stats for choosing missile weapons are the Firing Chart, the mass, the Power To Arm, and the Damage. Comparing one weapon with another, choose the ship's missile weapon type (only one type per ship) and number. For each weapon, select either the forward or aft firing arc.

Record Weapon Stats

Record each beam weapon type, number, Damage Modifiers, Firing Chart, and Firing Arcs in the equipment column. Record the mass, SS Requirement, WDF, and number of each type in the calculations column.

Record the missile weapon type, number, Power To Arm, Damage, Firing Chart, and Firing Arcs in the equipment column. Record the mass, SS Requirement, WDF, and number in the calculations column.

Calculate Total Weapon Mass

Multiply the mass of each beam weapon by the number of that weapon type, and multiply the mass of each missile weapon by the number of missile weapons, as indicated in the calculations column. Total these values, and record the Total Weapon Mass in the class column.

Calculate Weapon Superstructure Strength

Multiply the number of each beam weapon type by the SS Requirement for each weapon of that type, and multiply the number of missile weapons by the SS Requirement for each weapon. Total these numbers, and record the Weapon SS Requirement in the SS column.

Calculate Total WDF

Multiply the number of each beam weapon type by the WDF for one weapon of that type, and multiply the number of missile weapons by the WDF for one missile weapon of that type. Total these values, and copy the Total WDF in the CE column.

DETERMINE SUPERSTRUCTURE STRENGTH

Calculate Total SS Requirement

Copy the SS Requirement for the warp engines, impulse engine, shields, and weapons into the spaces provided in the calculations column. Total these requirements (rounding up), and record the Total SS Requirement in the SS column.

Determine Superstructure Strength

Choose some additional superstructure strength to add to the SS Requirement. The more additional SS chosen, the longer the ship will last in combat, the more mass it will have, and the higher Combat Efficiency Value it will end up with. Record the additional SS in the SS column, and add this to the Total SS Requirement. Record the Superstructure Strength in the SS column.

Calculate SS Mass

Multiply the Superstructure Strength by 1500 to find the mass of the superstructure. Record this SS Mass in the class column.

CHECK TOTAL Mass

Calculate Total Mass

Copy the total mass for the warp engines, the impulse engines, the shield generators, and the weapons into the spaces provided in the calculations column. Total the mass, and record the total ship's mass in the class column.

Compare Mass

Compare this sum to the maximum mass allowed for the ship class chosen. If the sum is less than the maximum mass allowed for the ship class chosen, and greater than the minimum mass allowed for that class, the design process is complete.

Adjust Mass

If the the sum is less than the minimum mass allowed, increase the mass until it is greater than the minimum. If the sum is greater than the maximum mass allowed, the mass must be decreased.

The easiest place to decrease mass is by altering the superstructure strength. Remove as much of the additional superstructure strength as necessary to bring the total mass below the maximum mass.

If this does not work, or if it is undesirable to reduce the superstructure strength, adjust the weapons. This may be done either by decreasing their number (easy) or by decreasing the weapon size (harder). Recalculate the Total Weapon Mass, and adjust other stats accordingly.

If it still does not work, repeat the design process, but use a lighter warp engine.

CALCULATE COMBAT EFFICIENCY

Calculate Defense Factor

Copy the Power Efficiency and Superstructure Strength values into the calculations column. Multiply the SS by 1.43 and add the Power Efficiency to get the Defense Factor (D). Record this in the CE column.

Calculate CE

Copy the Total WDF and the Defense Factor into the calculations column. Multiply the two and record the CE in the CE column. This completes the design process.

SHIP CONSTRUCTION FORM

Equipment

Class

SS

Calculations

CE

Ship Class

Maximum Ship Mass _____ mt

Choose Ship Class

Choose Control Computer Type

Maximum WDF _____

Computer Type

Mass

SS Requirement

_____ mt

Choose Warp Engine Type

Warp Engine Type

Number _____

Movement Point Ratio _____

Power Units

Mass

SS Requirement

WER _____

Available _____

_____ mt

Stress Columns

Max. Safe Cruising

Emergency Speed

Speed _____

Choose Impulse Engine Type

Impulse Engine Type

Mass

SS Requirement

_____ mt

Power Units

Available _____

Total Power Units

Available _____

Total Power Units Available = $\frac{\text{Warp Engine 1}}{\text{Warp Engine 1}} + \frac{\text{Warp Engine 2}}{\text{Warp Engine 2}} + \frac{\text{Impulse Engine}}{\text{Impulse Engine}} =$ _____

Calculate Total Power Units Available

Choose Shield Generator Types

Calculate Power Efficiency

Power Efficiency = $(\frac{\text{WER}}{\text{WER}} + \frac{\text{IER}}{\text{IER}} + \frac{\text{DPC}}{\text{DPC}}) \times \frac{\text{SER}}{\text{SER}} =$ _____

DPC _____

SER _____

Power Efficiency _____

Shield Generator

Mass

SS Requirement

Type _____

_____ mt

Maximum Shield

Shield Point

Power _____

Ratio _____

Beam #1 Type

Number _____

Damage Modifiers

Mass

SS Requirement

+3 (____ - ____)

_____ mt

+2 (____ - ____)

Firing Chart

Firing Arcs

+1 (____ - ____)

Choose Weapon Types

Calculate Total Weapon Mass

#1 Beam Mass = $\frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} =$ _____

#2 Beam Mass = $\frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} =$ _____

Missile Mass = $\frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} =$ _____

WDF, #1 _____

Calculate Weapon Superstructure

#1 Beam Superstructure = $\frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} =$ _____

#2 Beam Superstructure = $\frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} =$ _____

Missile Superstructure = $\frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} =$ _____

WDF, #2 _____

Calculate Total WDF

#1 Beam WDF = $\frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} =$ _____

#2 Beam WDF = $\frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} =$ _____

Missile WDF = $\frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} =$ _____

WDF, Missile _____

Total WDF _____

Calculate Total SS Requirement

$\frac{\text{Warp}}{\text{Warp}} + \frac{\text{Impulse}}{\text{Impulse}} + \frac{\text{Shield}}{\text{Shield}} + \frac{\text{Computer}}{\text{Computer}} + \frac{\text{\#1 Beam}}{\text{\#1 Beam}} + \frac{\text{\#2 Beam}}{\text{\#2 Beam}} + \frac{\text{Missile}}{\text{Missile}} =$ _____

Calculate SS Mass

SS Mass = $\frac{\text{SS}}{\text{SS}} \times 1500 =$ _____

Component Mass

Total SS Required

SS Mass

Additional Superstructure

Total Ship's Mass

Total Ship's SS

Calculate Defense Factor

Defense Factor = $\frac{\text{Power Efficiency}}{\text{Power Efficiency}} + [\frac{\text{SS}}{\text{SS}} \times 1.43] =$ _____

WDF _____

D _____

CE _____

CE = $\frac{\text{D}}{\text{D}} \times \frac{\text{WDF}}{\text{WDF}} / 100 =$ _____

Combat Efficiency

The efficiency of a starship in combat depends on two broad factors - how long it can withstand enemy fire and how much damage it can do before it is destroyed. Combat Efficiency values may be calculated from the data provided in the ship construction tables. They are a function of the way the ship is constructed, and so they are intimately related to the way the ship uses the power produced by its engines, the strength of its superstructure and deflector shielding, and the overall potency of its weapons.

COMBAT EFFICIENCY FORMULA

The Combat Efficiency (CE) of a ship may be expressed by the following formula:

$$\text{Combat Efficiency (CE)} = \text{Defense Factor (D)} \times \text{Weapon Damage Factor (WDF)} / 100$$

In this formula, the Defense Factor takes into account the efficiency with which the ship's warp and impulse engines convert their power to movement and shielding, the strength of the ship's deflector shields, and the Superstructure Strength. This factor may be expressed as follows:

$$\text{Defense Factor (D)} = \text{Power Efficiency} + \text{Superstructure Strength}$$

or

$$D = (\text{WER} + \text{IER} + \text{DPC}) \times \text{SER} + (1.43 \times \text{SS})$$

This formula includes the following construction values:

- WER** = Warp Engine Movement Efficiency Rating
- IER** = Impulse Engine Movement Efficiency Rating
- DPC** = Damage Penetration Coefficient
- SER** = Shield Efficiency Rating
- SS** = Superstructure Strength



USING THE FORMULA

To determine the Combat Efficiency of a ship when the construction values have already been determined, simply substitute the values for each in the appropriate place in the formula. A hand calculator makes the job much easier.

FINDING THE DEFENSE FACTOR

First, find the Power Efficiency. Second, calculate the Superstructure Strength. Third, add these values to find the Defense Factor.

Power Efficiency

First, determine the Warp Engine Movement Efficiency Rating (WER) and Impulse Engine Movement Efficiency Rating (IER) for the ship's engines, and the Damage Penetration Coefficient (DPC) and Shield Efficiency Rating (SER) for the ship's shields. These values may be found in the Ship Construction Tables for each engine configuration (type, number, and movement point ratio) and shield configuration (type, maximum shield power, and shield point ratio).

Next, add the WER, the IER, and the DPC together, retaining any decimals.

Last, multiply the sum by the SER, and round to one decimal place.

For example, the Larson Class VII Destroyer has 1 FWC-2 warp engine that delivers 20 power units with a Movement Point Ratio of 2/1, giving a WER of 14.5. Its FIB impulse engine delivers 2 power units at the same Movement Point Ratio, for an IER of 1.5. Its FSC shield generators give a maximum shield power of 8 at a shield point ratio of 1/1; this shield configuration has a SER of 1 and a DPC of 4.5. This means that the Power Efficiency of the ship is 20.5 ($14.5 + 1.5 + 4.5 = 20.5$; $20.5 \times 1 = 20.5$).

Superstructure Strength

To find the Superstructure Strength (SS), first determine the total superstructure points. Next, multiply this by 1.43, retaining one decimal place.

In our example, the Larson has 10 superstructure points. Multiplying by 1.43 gives 14.3, the Superstructure Strength.

Defense Factor

To find the Defense Factor (D), add the Power Efficiency and the Superstructure Strength. Retain 1 decimal place.

For the Larson, the Power Efficiency is 20.5. Adding the Superstructure Strength of 14.3 gives the ship a D of 34.8.

FINDING THE COMBAT EFFICIENCY

To find the Weapon Damage Factor of a ship, total the WDF values for each of the ship's weapons. Multiply the WDF by the Defense Factor, divide by 100, then round to 1 decimal place to get the Combat Efficiency.

The Larson has 6 FH-4 phasers, with a WDF of 2.6 each. It also has 2 FP-2 photon torpedoes with a WDF of 2.0 each. Thus, the ship's WDF is 17.8 ($13.8 + 4 = 17.8$).

Multiplying the Defense Factor of 34.8 by the WDF of 17.8 gives 619.4. Dividing this by 100 and rounding to 1 decimal place gives 6.2, the Combat Efficiency of a Larson.

USING COMBAT EFFICIENCIES

In starship combat, the Combat Efficiency of two ships may be compared. Given average luck and identical skill on the part of the two Captains, the ship with the higher CE theoretically will be victorious.

The problem with reality is that luck is *not* average, and two Captains rarely have the same skill. Thus, the Combat Efficiency should be an indicator of which ships will be close matches in a head-to-head confrontation. For example, the CE of a *Constitution* Class ship is 38.5, and that for a *D-10* is 36.4, indicating that these ships will be good matches for one another in a duel.

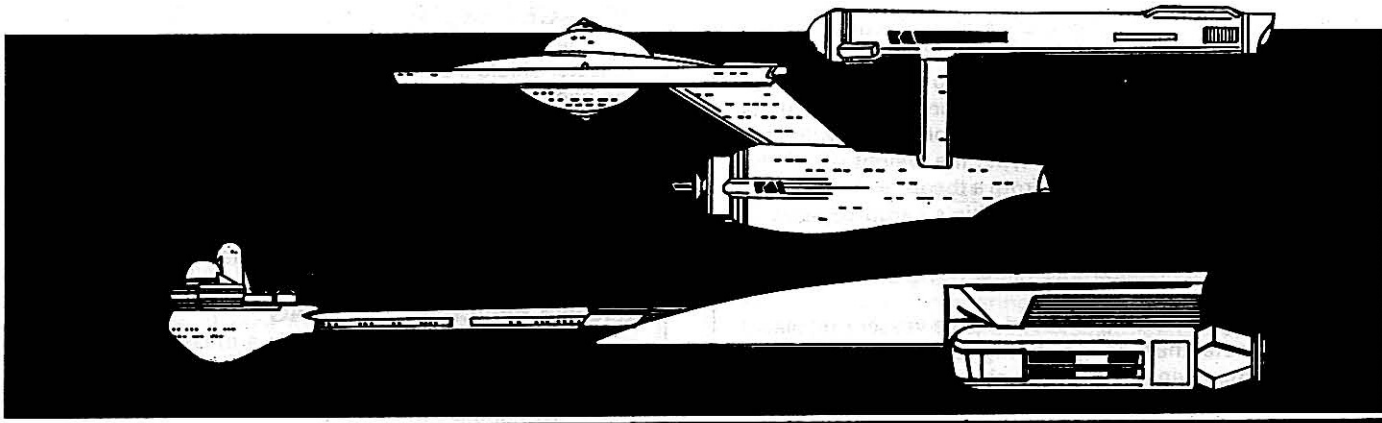
The use of D, WDF, and CE allows long-range planning of campaigns, in which the choice of ships for the campaign is not made arbitrarily. It allows ship construction to be a useful factor in detailed long-range goals.

POWER EFFICIENCY

The Power Efficiency factor takes into account the way the ship allocates power to movement and power to shields.

The ship's actual movement in combat is not necessary for a calculation of its *theoretical* Combat Efficiency, but this will certainly have a bearing on the outcome of any real combat! With only so much power available, if the ship wishes to move, it must spend power to do this at the expense of shielding and weapon strength, and so it is the efficiency of movement that is calculated here.

In a similar way, the power converted to shields can vary from game turn to game turn, and so the actual shielding in any real combat will vary tremendously. Nevertheless, the *theoretical* Combat Efficiency can be calculated, for the power given to shields takes away from that which can be given to movement or weapons.



ORIGIN OF THE CE FORMULA

The Combat Efficiency Formula owes its origin to the work done by Don Turnbull for fantasy monsters, in which he pointed out that the aggressiveness of a monster depends on how many combat rounds it can survive an attack from a theoretical standard swordsman and on how much damage the monster could deliver in that time to a theoretical standard target. Assumptions were made that the monster stood still while the standard swordsman, hacked away, and that the target stood still while the monster did his damage in return.

This original thinking needed to be modified for the **STAR TREK Starship Combat Role Playing Game** for several reasons. The most obvious of these is that the ships do not combat hand-to-hand, and so provision had to be made for ranged attacks. The second is that ships do not stay positioned in one spot relative to one another during the game, and so provision had to be made that included the possibility of movement. The most crucial change, however, and the one that makes the Combat Efficiency Formula the most different, is the provisions made in the formula for the game mechanics of splitting total power into movement, weapons, and shields.

In deriving the values given in the tables, a standard starship (not one that would really be built) was designed to be both the attacker and the defender. This standard starship was designed to be the lowest-power ship that could be expected to participate regularly in starship combat. In determining DPC values and SS values, this ship's weaponry was used, and its power figures into the final DPC and SS for each engine and shield configuration. In determining WDF values, this ship was used as a target, with the value of its shields figured into the final WDF for any weapon.

The power given to weapons is assumed to be maximum, for maximum damage, because a ship has NO Combat Efficiency without weapons. In some heavily-armed ships, the power needed to arm all weapons to their maximum is greater than the power available, but this is ignored. Because this is maximum, it does not matter how much power is actually given to the weapons during any game turn, and so this power use is reflected in the Weapon Damage Factor.

SUPERSTRUCTURE STRENGTH

It is the superstructure of the ship that averages the most damage in combat. (About half of all possible hits give direct superstructure damage.) Thus, it is the superstructure that usually is demolished first by enemy fire, and so its strength is the most important and the controlling factor in determining how long a starship can exist once its shields are down.

The SS value in the formula is the number of superstructure points the ship has, and the coefficient of 1.43 reflects the value of this superstructure with respect to the weapons of the standard ship.

WEAPON DAMAGE FACTOR

The WDF in the formula reflects the full potency of the ship's weaponry, regardless of the firing arcs for each weapon or whether all weapons can be fully-powered at any one time. This number not only includes the power allocated to the weapon and the damage done by the weapon, but the distance at which the weapon can strike for damage. Thus, any weapon that has a lower power-to-damage ratio, a higher set of damage modifiers, a greater damage potential, and a longer range will have a higher WDF. The WDF values in the tables reflect the damage any weapon does against the standard starship's shield and superstructure.

Ship Construction Glossary

The following lists of terms pertain to one or another facet of ship construction. One list defines and describes terms relating to the areas in a ship, from the airlock to the weapon mounting hardpoint. Another list gives the terms used in ship evaluation and design, including the definitions for the various terms used in rating the combat efficiency of ship. A third list gives the basic descriptions of the types of combat ships most commonly built, and a fourth describes the most common non-combat and commercial starships.

EVALUATION AND DESIGN TERMS

CARGO UNIT

A cargo unit is the volume of cargo that would occupy 6.75 cubic meters of space, or a volume of 1.5 meters wide, 1.5 meters long, and 3 meters tall. Cargo holds on military and civilian ships are measured in standard cargo units (SCU). Although the actual weight of one SCU will vary widely depending on the cargo type, the weight of a fully-loaded ship will not vary greatly from a theoretical maximum set by the rated cargo capacity. A ship's cargo capacity is determined by using the theoretical weight of 50 metric tons per SCU, which is about 3/4 the weight of water.

CLASS

The class of a starship is based on the vessel's displacement. The greater the tonnage, the higher the class, as shown in the accompanying table. The ship designer most frequently decides on the ship class before he makes the other decisions needed in constructing a ship.

SHIP CLASSES	
Class	Mass (mt)
I	0 - 5
II	5 - 15
III	15 - 25
IV	25 - 40
V	40 - 60
VI	60 - 80
VII	80 - 100
VIII	100 - 120
IX	120 - 140
X	140 - 160
XI	160 - 180
XII	180 - 210
XIII	210 - 240
XIV	240 - 300
XV	300 - 350
XVI	350 - 400
XVII	400 - 450
XVIII	450 - 500
XIX	500 - 600
XX	600 - 700

There is a relationship between the class of a vessel and the movement point ratio. For any engine, the greater the class the greater number of power units are required to propel the ship over a given distance.

COMBAT EFFICIENCY

A vessel's combat efficiency (CE) is a measure of how the vessel will perform in combat. The efficiency of the ship's warp and impulse engines, of its shields, of its superstructure, and of its weaponry all combine to make the combat efficiency.

When comparing the battle capability of two vessels, the combat efficiency ratings of each are compared. In a head-to-head confrontation with commanders of equal skill, the vessel with the higher combat efficiency likely will be the victor. In multi-ship confrontation simulations, the Defense factor (D) and the Weapon Damage Factor (WDF) of both sides are totaled to determine the evenness of the two sides.

DAMAGE PENETRATION COEFFICIENT

The damage penetration coefficient is a measure of a deflector shield's efficiency in combat. The greater the damage penetration coefficient, the more damage can penetrate the shield from any given weapon. The damage penetration coefficient is determined from its maximum power and the generator's shield point ratio. Thus, it is roughly related to a ship's class, for a shield's maximum power is related to the ship's size. The damage penetration coefficient (DPC) is used to determine a ship's defense factor and its combat efficiency.

ENGINE EFFICIENCY RATING

The engine efficiency rating is a measure of a warp or impulse engine's use of the power it has available. Thus, the more efficient the engine, the greater the efficiency rating. The warp engine efficiency rating (WER) and the impulse engine efficiency rating (IER) are used to help determine the ship's defense factor and combat efficiency.

There also is a relationship between an engine's efficiency rating and the ship's displacement. In general, the greater the class of ship, the less the engine efficiency rating for a given engine, because the engine has more mass to push around.

MASS

The mass of a ship, usually measured in metric tons, is its displacement. The greater the mass of a ship, the more its engines must work to move the vessel through space. The class of a ship is directly determined by its mass. See CLASS.

MAXIMUM SHIELD POWER

The maximum shield power of a shield generator, usually measured in millions of joules, is a measure of the damage that the shield can dissipate from a direct hit. (A joule is the amount of energy needed to move 1 mt. a distance of .1 m.) For any shield generator, the maximum power that may be generated depends on the surface area that must be shielded. The greater the surface area, the less the maximum shield power that may be generated. This means that, for ships of the same basic configuration, the maximum shield power is roughly related to the ship class.

MOVEMENT POINT RATIO

A vessel's movement point ratio is a measure of the efficiency with which the engine's power is converted to movement. It is equal to the number of engine power units (10 megawatts) needed to move the ship one standard distance (10,000 km). Thus, movement point ratios frequently are 6/1, 5/1, 4/1, 3/1, 2/1, 3/2, or even 1/1. Sometimes, for exceptionally efficient ships, less than one engine power unit will move a ship several standard distance units; in these cases, the movement point ratio will be 1/2, 1/3, or 1/4.

POWER UNITS AVAILABLE

The power available from an engine for use in combat is measured in power units, each equal to 10 megawatts. This power is converted to maneuver, to movement at sub-light speeds, to weaponry, and to shielding. The power units available from an engine is used to determine the engine's efficiency rating.

SHIELD POINT RATIO

The efficiency with which a shield generator converts its power into shielding determines the generator's shield point ratio. The shield point ratio is found by dividing one power unit (10 megawatts) by the number of shield points (10 million joules of energy) that are produced by the generator. The lower the ratio, the greater the shield generator's efficiency. Shield point ratios for most generators are 1/4, 1/3, 1/2, or 1/1. Sometimes more power is required to produce even 1 shield point; in these cases, the shield ratios are 3/1, 2/1, or 3/2. The shield point ratio is the inverse of the shield effectiveness rating (SER), which effects the combat efficiency of a vessel.

STANDARD DISTANCE

A standard distance equals 10,000 km. This is represented on standard mapsheets by 1 hex. If a ship marker moves 12 hexes on a mapsheet, it moves 12 x 10,000 km, or 120,000 km.

STRESS CHART

When a ship makes a heading change at elevated warp speeds, damage may result from the stress given to the engine mountings and other related superstructure, or to the engine itself. The chance for this to occur is given in the various columns of the Stress Chart. The columns on the Stress Chart, designated by letters, are listed with the other engine and power data on all ship data sheets.

SUPERSTRUCTURE STRENGTH

The superstructure strength of a vessel is a theoretical number describing the ship's structural integrity. It is the amount of structural reinforcement necessary to just equal the damage taken from 10 million joules of energy, or one damage point; this weighs 1500 metric tons. It also is the amount of structural reinforcement necessary to be the equivalent of one shield point. The superstructure strength (SS) is used in figuring a ship's defense factor and its combat efficiency.

WARP SPEED

The speeds faster than light-speed produced by warp engines are known as warp speeds. The various warp speeds are designated by warp factors; the speed is the cube of the warp factor multiplied by the speed of light. Thus, Warp 1 is $1 \times 1 \times 1 = 1$ times the speed of light. Warp 2 is $2 \times 2 \times 2 = 8$ times the speed of light, and so on.

Two warp speeds are listed with the engine and power data for each ship. The first of these, the ship's Maximum Safe Cruising Speed, tells the maximum warp speed that the ship may travel in normal use. The second, the ship's Emergency Speed, tells the maximum warp speed that the ship may travel.

WEAPON DAMAGE

The damage done by a beam or missile weapon is measured in damage points equal to 10 million joules of energy. This damage is absorbed by the deflector shield, and thus, for the purpose of computing damage done to a ship, the damage points are subtracted from the shield points powered by a given shield. As a shield absorbs damage, the protection afforded by the shield generator is eroded away, until the shield protection is gone; it is then that the ship takes damage.

In combat, the damage done by a weapon salvo is subtracted from the shielding; when the damage exceeds the shield protection, then the ship's superstructure, engines, weapons, shields, or crew take damage.

WEAPON DAMAGE FACTOR

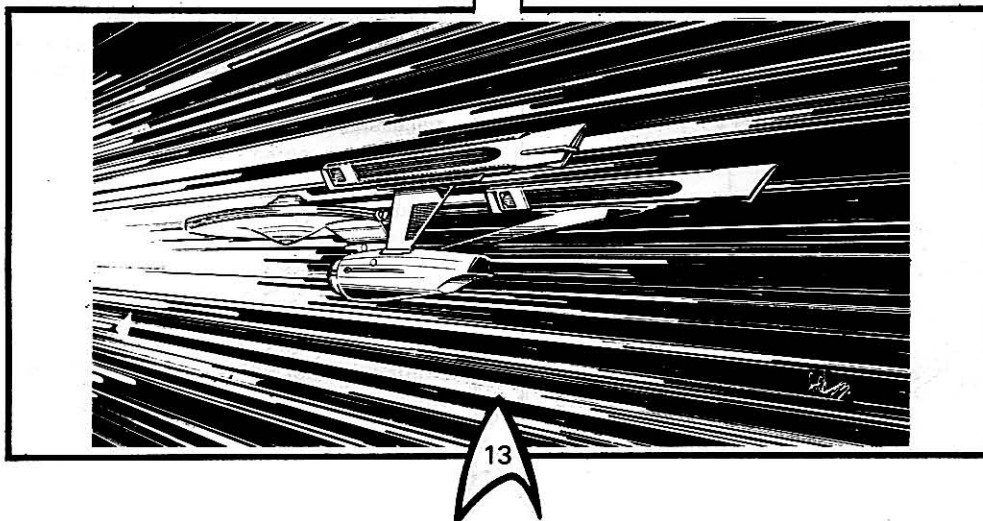
The efficiency of a beam or missile weapon is determined by the average damage this weapon will do over its entire range against a given shield. One weapon may be compared with another by comparing their weapon efficiency factors. The weapon with the greater weapon efficiency factor is the more powerful.

The efficiency of two ship's weaponry may be compared by totalling the weapon efficiency factors of all of the weapons the ship bears. The ship with the greater total has the more powerful weaponry, though it may not be the more effective in combat if the ships have substantially different engine efficiencies or damage penetration coefficients.

WEAPON POWER REQUIREMENT

A weapon's power requirement is measured by how many power units (10 megawatts) are necessary to arm and discharge the weapon. For missile weapons, the power to arm the weapon usually is 1 or 2 power units. For beam weapons, the power put into the weapon is variable, and the weapon power range may be as small as 0 - 1 or as great as 0 - 10.

For missile weapons, the damage produced bears little relationship to the power requirement. For beam weapons, the damage energy produced (measured in damage points of 10 million joules each) is equal to the power units put into the weapon.

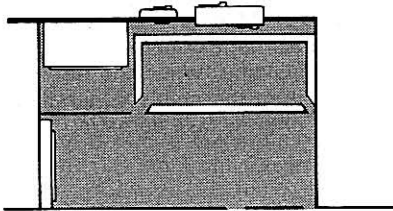


SHIPBOARD AREAS

The following paragraphs describe the internal characteristics of the major areas aboard a starship. They tell the use and give other information about each area, and the accompanying diagrams show typical equipment and layouts for each area.

AIRLOCK

An airlock is designed for one thing: to allow the passage of people or things from an area at one air pressure (or lack of) to an area at another. Operating controls normally are duplicated on doors inside and outside the chamber, and emergency overrides usually are installed in the engineering section and at the engineering console on the bridge.

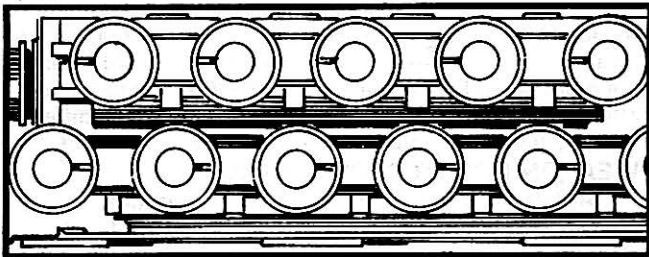


ARMORY

The ship's armory is a locked storage area for hand weapons. Only Command and Security personnel have the access codes for these rooms. Armories normally are located near transporter rooms (for landing party access) and brig.

BATTERIES

Batteries are large storage cells for power for use at a later time.

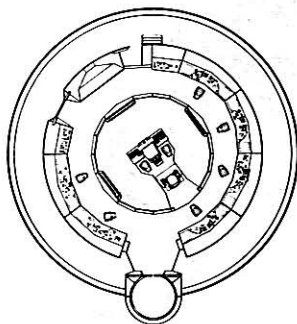


BEAM WEAPON

A beam weapon projects a beam of energy as its destructive force. The beam weapon of the UFP is the phaser, which is set to disintegrate. Ships of the Klingon Empire, Romulan Star Empire, and Orion Colonies use the disruptor, which vibrates cells and crystals until they lose integrity. The Gorn use blasters which project a beam of semi-coherent energy that damages through burning and cellular disruption.

BRIDGE

The bridge is the control center for a starship, where the Captain and duty officers monitor the ship's functions, steer the ship, and so forth.



BRIEFING ROOM

A briefing room is a conference room normally used to brief (instruct) a group. This is where landing parties normally receive their instructions.

BRIG

The ship's brig is a detainment area used for holding or restraining personnel under arrest. When a brig is built aboard a ship, forcefield circuitry is built into the door openings to take the place of the older bars and locks. If a ship is too small to have a permanent brig, a cabin, a stateroom, or the sickbay frequently is fitted with a forcefield in addition to its normal door. If this is not the case, when needed, a competent engineer can rig a temporary forcefield in any room to take its place.

CABIN

On ships of the military, the Captain's quarters is called a cabin; on civilian vessels, the officers also have cabins. On yachts, couriers, and other passenger vessels, the passenger's quarters may be called cabins or, more commonly, staterooms.

CARGO HOLD

The cargo hold, or just hold, is an area specifically designed to hold cargo. It normally has various types of restraints to keep cargo in place, including straps, force fields, anti-grav units, and temporary walls. The capacity of a hold is measured in standard cargo units (SCU), which are a floor area 1.5 meters square by 3 meters tall.

CHAPEL

Though only the largest Federation military vessels have these, and some private or commercial vessels as well, the ship's chapel is used for services ranging from weddings to funerals. Most Romulan vessels are outfitted with chapels.

CHART ROOM

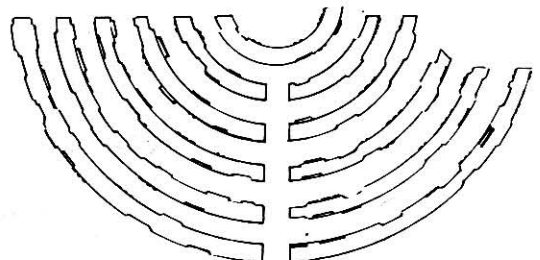
The chart room is a hold-over from the non-electronic/computer age. Although all navigational data is stored in the computers, the old naval tradition of a chart room is still strong in almost all cultures. This room contains hard copies of navigational charts and has equipment to reproduce charts and maps.

CLOAKING DEVICE

A device designed by the Romulans to render stationary ships invisible to the naked eye and to most visual sensors. The device is of less value if the ship moves, as its ion trail may be picked up on sensor scans set to detect it. The cloak is of no value if the ship uses weapons, because so much power is needed for the cloak that it must be turned off temporarily in order to fire weaponry.

COMPUTER, SHIP'S

The functions of most starships are computer controlled. There are several control computer types, each one capable of handling more or less of the demands of a particular set of shield generators, weaponry fire control sensors and targeting, and starship sensors. The larger and more complex the job demanded of a computer, the more advanced model is necessary to handle it.



CONSOLE

The control panels used by the duty officers and crewmen in the bridge are called consoles. Some of these, such as the engineering and the weapons consoles, are repeater control panels showing the readouts for equipment located elsewhere.

Cloaking

Used to control the cloaking device, this console is found only on some Romulan or Klingon vessels, where it is often combined with the navigation console.

Command

This console is used by the officer of the watch or the ship's captain. Ship's log and communication/computer can be accessed here on most vessels.

Communications/Damage Control

This control panel handles all communications aboard the vessel, internal and external. Access to computer banks makes cross-reference possible for various forms of communications. Internal communications can be to almost any individual station or room. This console also monitors all damage control information, giving status of various compartments and crew casualties.

Engineering And Engineering Subsystems

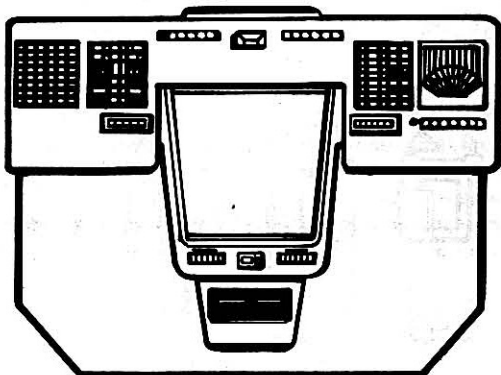
All engineering systems are monitored here. All power generation and channeling may be controlled from here, though these controls are repeated in the engineering control room.

Environmental Systems

This console monitors all changes in atmosphere, gravity, and so forth. Any changes in the environment in any part of the vessel are made from here.

Helm

The helm handles the actual maneuvering of the vessel. On many vessels, particularly those of Star Fleet, this station also handles offensive weaponry.



Navigation And Navigation Subsystems

These consoles control the computer that plots and carries out travel between destinations; it also handles the deflector shield controls. In larger vessels, this console works hand in hand with the helm, and on many smaller vessels helm and navigation are handled at the same console.

Sciences/Computer

The sciences console handles all sensor information received. Through its controls, data is analyzed, evaluated, and stored for later use, and data can be sent from this console to any terminal on board cleared and programmed to receive it.

Weapons And Weapons Subsystems

This console monitors all offensive weaponry systems. On more modern vessels, and on most Klingon vessels, this station rather than the helm console is the primary fire control center.

DECONTAMINATION ROOM

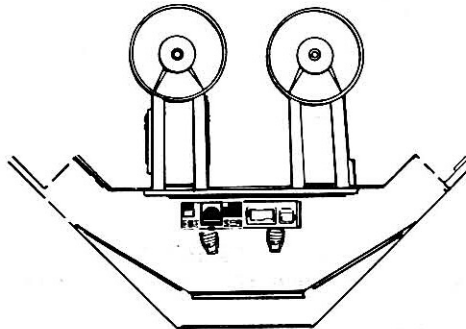
This room is used to decontaminate personnel or equipment.

DEFLECTOR SHIELD

The first line of defense of a starship is its deflector shield. An energy field that absorbs and dissipates the impact of other forms of energy or matter, or even minute quantities of anti-matter.

ENGINEERING CONTROL ROOM

The controls operating the engines, life support, and all other matters concerning power are located in the engineering control room, normally located adjacent to the engines. In most vessels, these controls are repeated on the engineering panel on the bridge.



ENVIRONMENTAL SUIT LOCKER

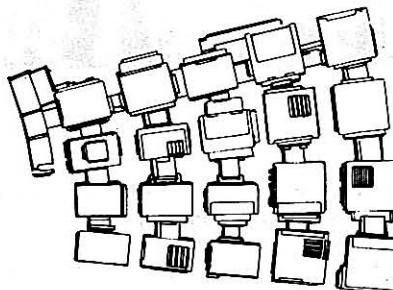
Lockers for the storage of environmental suits, normally accommodating 10 suits, are kept unlocked. They are located throughout the vessel for easy access in an emergency.

FIRE CONTROL CENTER

Each of the ship's beam and missile weapons have a repeater console handling the firing of ship's weapons. The console ties into the computer for targeting and to the weapons console on the bridge. Although the bridge normally handles firing, the fire control center located near a weapons system is a backup in case the bridge is unable to fire the weapons. All firing is done through this console, even when the bridge is functional.

FOOD PROCESSOR

Food processors manufacture foodstuffs from basic protein, fat, carbohydrate, fiber, and nutrient supplies. These are reworked into textures, colors, and flavors that look and taste like freshly prepared meats, vegetables, and fruits. They can produce almost any type of meal from their memory banks.

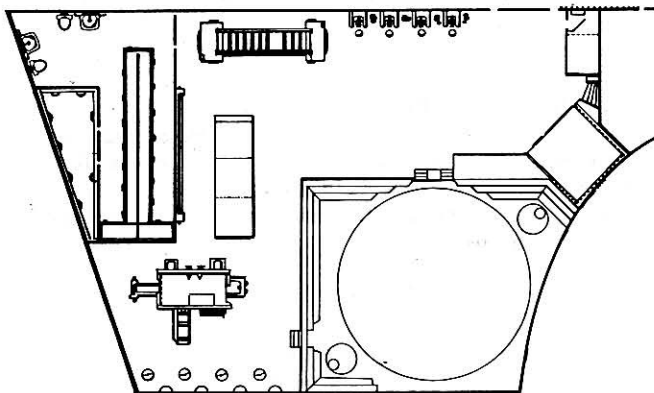


GALLEY

An old-fashioned kitchen called the galley allows the preparation of meals in a more mundane fashion, with stoves, ovens, and hand utensils. Maintained on many larger vessels, the galley is used by the crew to satisfy hobbies and exotic desires the processors cannot handle.

GYMNASIUM

The physical recreation facilities aboard many vessels include swimming pools, firing ranges, boxing arenas, and so forth.



HEAD

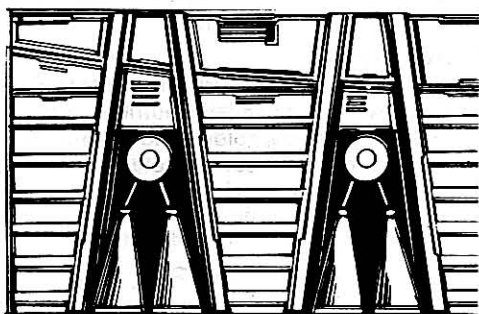
Sanitary facilities aboard ship are of many types, be it the old Terran shower or tub to ultraviolet or sonic cleansing units.

HYPOTHERMIA CAPSULE

Hypothermia capsules are used by the Klingons to put combat troops into suspended animation; this process is called freeze-down. They save on life-support requirements for long journeys, but their reliability (98%) is low enough that they are not used by the UFP.

IMPULSE ENGINES

These engines are used for in-system maneuver. A variety of drive systems are used, including hydrogen fusion and directed ion pulses. For maximum safety, these engines require heavy shielding.

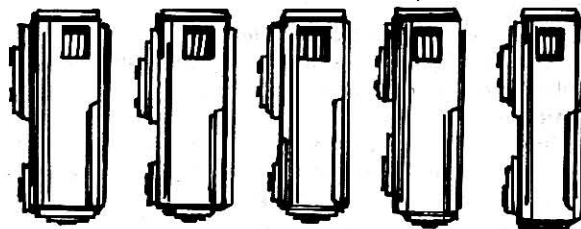


LABORATORY

Research facilities are quite extensive on most Federation vessels. These are of many types, depending on the mission of the ship. Included might be electronics labs for the study of all types of electronic-related fields, including radio, radar, and sensors. Life sciences labs are used for the study of botany and zoology. Medical labs may be used for medical research, be it a new disease or developing xenosurgical techniques. Physical and planetary science labs are used for the study of physical phenomena in space as well as of planetary and meteoritic or asteroidal bodies.

LAUNDRY

Although fabricators eliminate most uses for a laundry facility, there are many items of sentimental value which personnel wish not to have broken down and reconstructed. These small facilities are for such use.



LIFE SUPPORT SYSTEM

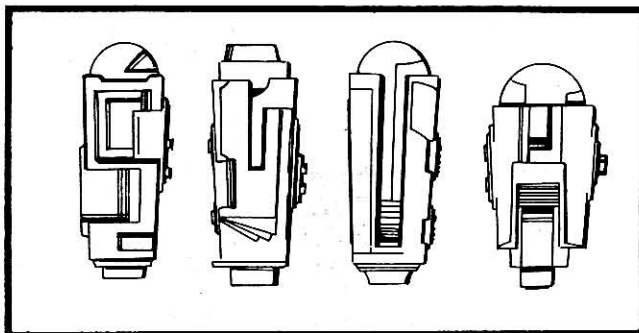
The equipment necessary for the maintenance of life aboard the vessel, including water storage and plumbing, air conditioning and heating, atmosphere recirculation and revitalization, and so forth, is called its life support system. From the environmental or engineering consoles, the life systems in any room can be altered, controlled, or even shut down. It takes normally 2 to 5 minutes to change the environment in any room.

LOUNGES

Small recreational areas for the crew include reading consoles/chairs, game tables, viewscreens, food slots, and so forth.

MATERIAL FABRICATORS

There are four types of material fabricators aboard most ships: food, organic, metallic, and non-metallic. These devices take raw materials from storage and convert them quickly and in quantity to the desired items. This greatly reduces the need for the carrying of huge amounts of supplies, as raw materials are readily available everywhere for use in conversion. In addition, nothing is wasted aboard ship. All waste material is recycled in one way or another.



MEDIA CENTER

These are the libraries of the ship, although many times the library is contained in the ship's computer and the needed data or book is fed into the media chair, which resembles a chair with a computer monitor and keypad. Access to some data may be restricted.

MESSHALL

The messhall is the ship's dining facilities. These vary from a small table in a corner on a two man scout to the spacious facilities aboard a capital ship.

MISSILE WEAPON

These systems launch solid objects at their targets. In most modern applications, these objects are matter/anti-matter bombs called photon torpedoes. (see Photon Torpedo)

NACELLE

The nacelle is the superstructure that supports a warp engine and the hullmetal covering for it. There are two general types currently in use in the UFP, markedly different in outward appearance.

PHOTON TORPEDO

The heart of a photon torpedo is an encased bit of anti-matter. Fired from a torpedo tube, on impact the torpedo releases its enclosing magnetic field and it becomes a destructive fireball.

PLASMA WEAPON

This energy weapon of Romulan origin produces a bolt of white-hot plasma that is directed at its target by a tractor-pressor field. It is considered a missile weapon because of the semi-solid nature of the half-matter, half-energy bolt.

PYLON

This structural support member is used to hold warp engines a safe distance from the ship's hull. Most pylon assemblies contain devices that can separate the warp engines from the hull in case of a critical overload in the matter/anti-matter mix chambers or other emergency.

READY ROOM

A ready room, normally a conference room, is used to prepare a landing party and to store equipment such as translators.

RECREATION CENTER

The recreation center includes gymnasiums, media centers, and so forth. A unique Federation recreational facility is the holographic park area. Here any type of outdoor or indoor scene can be recreated so realistically that the viewer is not sure what is real and what is not.

SENSORS

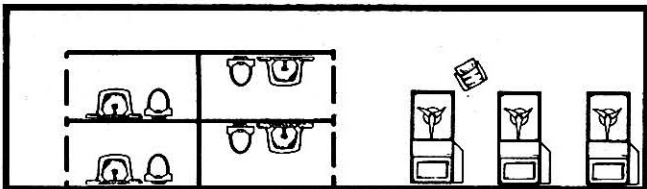
Sensors are detection, sampling, and analysis devices used by starships to sample their environment.

SHIELD GENERATOR

Shield generators are used to make the defensive shield. The energy then flows through conduits to the 'webbing' on the outer hull.

SICKBAY

The medical facilities on a vessel can be quite simple, having one diagnostic bed with limited surgical facilities, or they can be quite elaborate and extensive, containing obstetrics, dental, psychiatry, and so forth. Larger vessels have sickbays with convalescent centers, intensive care, and more.



SHUTTLE BAY

The storage, launch, and recovery area for shuttles are often much larger than needed for the ship's own shuttles so as to accommodate shuttles from other vessels or planets.

STATEROOM

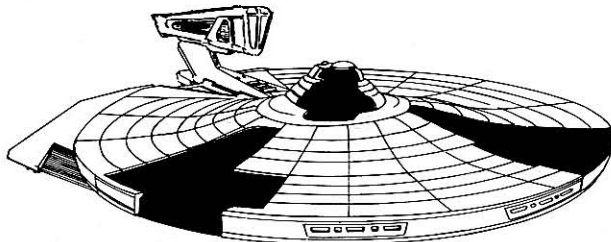
Living quarters for VIPs and passengers most often are called staterooms. Most Federation vessels are equipped with anti-grav plates for zero or low gee sleeping. Most are furnished with a work area, sanitary facilities, a small living area, a computer terminal, and so forth.

STORAGE LOCKER/COMPARTMENT

In addition to the cargo hold, every ship has various-sized storage facilities for gear, food, portable equipment, and other items that cannot be made by the material fabrication units for one reason or another.

SUPERSTRUCTURE

This is the all-inclusive term for the structural metal framework that holds the various ship components together and that defines its hull size and shape. Its strength may vary from ship to ship of the same size, depending on the amount of damage the vessel is intended to absorb. In general, the stronger the superstructure of a vessel, the greater its defensive abilities.

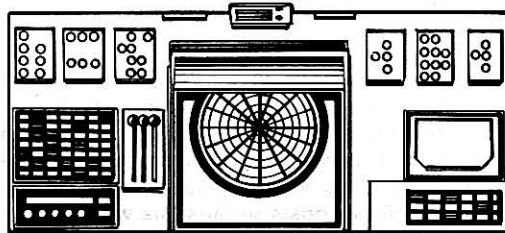


TRACTOR/PRESSOR BEAM

A tractor beam is an electromagnetic beam that allows a smaller mass item to be drawn to or pushed away from the vessel. Its maximum range is about 160,000 km.

TRANSPORTER

The transporter is a matter/energy scrambler capable of recording the molecular and sub-molecular pattern of an object, disintegrating that object, and beaming it across space to be reformed at another location as far away as 26,000 km. Both living and non-living matter may be transported as fast as the speed of light in this manner.



TURBOLIFT

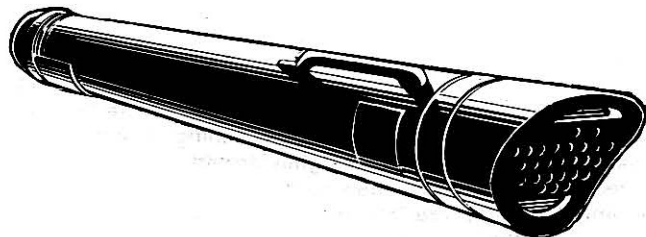
High-speed, 10-man turboelevator cars are moved about magnetically through tubes running through the vessel. These are computer-controlled and voice-actuated; the user simply enters and tells the turbolift where he wishes to go, and the car takes him there in under 10 seconds.

WARDROOM

Some ships have a wardroom, which is used only by the officers for recreation and dining.

WARP ENGINE

This engine is powered by a controlled mixture of matter and anti-matter, directed through a dilithium crystal. The mixture produces a discontinuity in space called a warp envelope, which allows travel at rates that vastly exceed the speed of light.



WEAPON MOUNTING HARDPOINT

These enclosures are used for mounting ship's weaponry. Each hardpoint includes all shielding and materials needed to properly accommodate the weapon.

COMBAT SHIP TYPES

Below are descriptions of each major type of combat vessel. Comments are included about the capabilities of each. They are listed from smallest to largest.

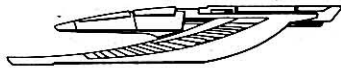
CUTTER

A cutter is a small patrol craft for in-system use; in Star Fleet, cutters are used by both Merchant Marine and Military Operations Commands. These vessels are lightly armed and shielded. Cutters are warp-capable, and their in-system maneuverability is very great.



GUNBOAT

This patrol craft is used for in-system, border, and other light patrol duty; its specialty is fast response to trouble-areas. In Star Fleet, gunboats are used by the Merchant Marine and Military Operations Commands to back up cutters while on in-system use, and they may contain sophisticated electronic surveillance gear for border duty. These vessels are lightly armed and shielded. Capable of greater warp speeds than the similarly-sized cutters, gunboats do not have quite the in-system maneuverability.



MONITOR

This gun platform is used in areas that are militarily sensitive; in Star Fleet, these vessels are used by the Military Operations Command only. Usually based in a newly-acquired area, they have a limited interstellar range because, if they are warp capable at all, they are capable of only low warp speeds. Because a monitor's mission is to dispel doubts concerning the ability to quell in-system civil disturbances, it has medium armament and light to medium shielding. Though it cannot stop most capital ships, it is used as a picket ship for border posts because its weapons can slow down warships before they get within range of the border post. It has the same in-system maneuverability as most capital ships.



COURIER

This vessel is designed for interstellar shuttle use, traveling from one known point to another. It is small and built for speed. Not intended as a warship, it has very light armament if it has any at all, and very light shields. Its main virtue is its speed, both in-system and at warp speed. Some, designed for VIP use, have luxurious passenger facilities. All Star Fleet Commands and other governmental agencies use these vessels. Outdated couriers frequently are refitted as private yachts or commercial freighters.



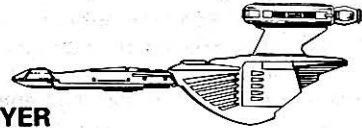
SCOUT

These ships precede research or military expeditions into an area, performing initial surveys in areas where "no man has gone before." Equipped for scanning, mapping, and exploring, these vessels are lightly armed and have light to medium shields. Most often used by the Galaxy Exploration Command, they are designed for long-range interstellar travel, and they have a lighter crew complement than other vessels their size. They have mid-range warp capability and moderate in-system maneuverability. Smaller scouts often are landing-capable, and thus they sometimes make the first contact with new races.



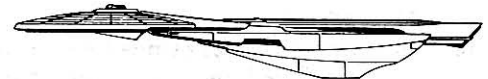
ESCORT

Designed specifically to provide armed escort for unarmed vessels, these ships have medium armament and shielding but sensitive electronic surveillance and monitoring equipment. Escorts travel in groups, always within transporter range of the vessels they protect, and thus they have only medium-range capability. In Star Fleet Merchant Marine and Military Command service, these vessels have sensitive motion detectors to combat Romulan cloaking devices. Lighter than the similarly-sized destroyers, these vessels have medium warp and sub-light maneuver capabilities.



DESTROYER

The smallest capital ship, the destroyer is designed for extended, long-range military duty. The outer ring of defense, these ships are used on borders as patrol craft and surveillance monitors and in fleet support as picket ships at extended range. They are the least expensive warships that can be produced and be effective. They have medium armament and shields, and, like all capital ships, they are capable of medium to high warp speeds and medium sub-light maneuverability.



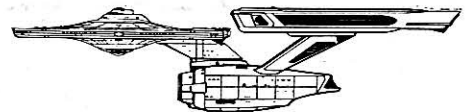
FRIGATE

This capital ship is used to protect a group of ships against larger enemy vessels. Frigates usually are deployed in small groups along sensitive borders. Frigates mount heavy firepower and carry troops in some configurations. They have medium to heavy shields, and are capable of medium to high warp speed and medium to fast sub-light maneuverability.



CRUISER

These capital ships are used to protect a group of ships against larger enemy vessels. When used in this role, they are accompanied by destroyers. Cruisers also serve as research vessels. All contain extensive laboratory and computer facilities. They are deployed mainly in non-sensitive frontier areas following up scouting reports. They have medium to heavy armament and shields, and are generally capable of high warp speeds and medium to fast sub-light maneuverability.



BATTLESHIP

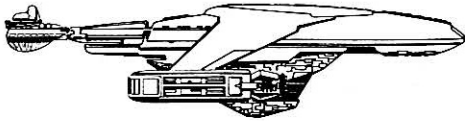
This is the largest capital ship, the most heavily armed in the fleet. Used as fleet flagships, battleships provide awesome firepower from behind their defensive screen of destroyers and frigates. They also are used for planetary bombardment. They have heavy armament and shields, and are generally capable of high warp speeds.



COMMERCIAL AND NON-COMBAT VESSEL TYPES

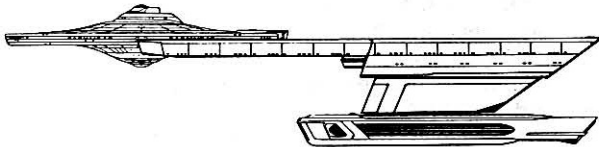
FREIGHTER

Freighters are used to carry freight inside their hull. Their speed and maneuver characteristics depend on the load that they are carrying at any moment. Usually mounting engines that can move exceedingly heavy loads, these vessels are among the largest, slowest, and least maneuverable starfaring vessels. Depending on the area to which they are assigned, they may carry light defense shields in addition to their navigational deflectors.



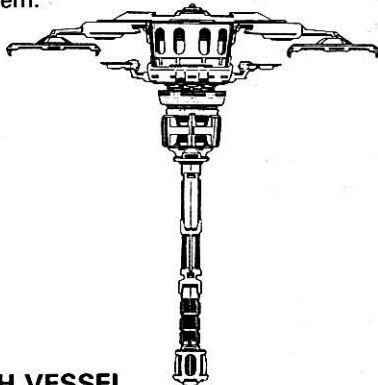
LINER

Liners are used for commercial passenger transport on specific runs, such as from Vulcan to Terra, or on exotic cruises, such as sightseeing tours in the Goran Nebula. They frequently have a wide range of accommodations, from the most luxurious to the most spartan. They have navigational shields and are capable of slow to medium warp speeds and medium sub-light maneuverability.



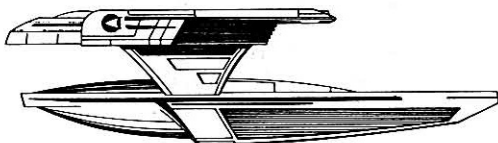
REPAIR FACILITY

These 'dry docks' are used to build and repair ships in space. Some are warp capable themselves, but most are towed into place or constructed where they are needed. Resembling a gigantic bird-cage, they are largely framework structures. A notable exception is the Space Dock that orbits Terra, which has entirely internal repair/construction facilities. These structures are not armed by the UFP, but the Romulans and the Klingons use them in forward areas, and thus arm them.



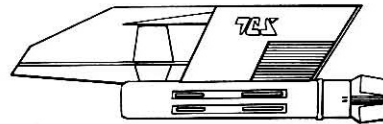
RESEARCH VESSEL

These ships are used for scientific research only. Those under Star Fleet control are required by regulations to carry at least one weapon for protection. They have generous laboratory facilities and larger, more-powerful computers than would be expected on warships of comparable size.



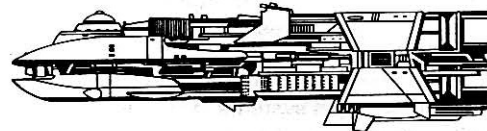
SHUTTLECRAFT

These sub-light craft are capable of atmospheric landings. They are used, in place of transporters, to move small groups of personnel about. They also function as ship launches and as lifeboats.



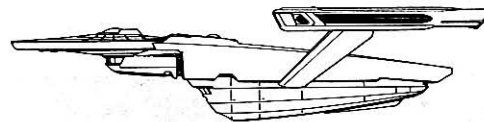
TRANSPORT, COMMERCIAL

Called tugs, pushers, or pullers, these vessels move their cargo around in pods, either pushing or pulling it, much like the railroad engines of early Terran history or the tugboats that plied its waterways. Essentially a framework for holding oftentimes enormous warp engines, they have minimal shielding and weaponry. They have slow to medium warp and maneuver capabilities.



TRANSPORT, TROOP

These vessels, sometimes called assault ships, are used to move troops. Most have large numbers of combat transporters and small and large cargo transporters. They may have light to medium armament and medium shields, and they are capable of medium to high warp speeds.



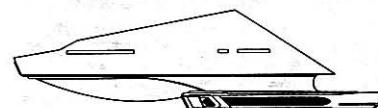
WARPSHUTTLE

This is a warp engine with capability to move people about.



YACHT

These pleasure and luxury craft are the private sector equivalent of the scout or courier. They have various shield capabilities for their mass (generally Class I or II), and may mount small beam weapons. They have medium to high warp capability, and high sub-light maneuver capability.



Equipment Descriptions

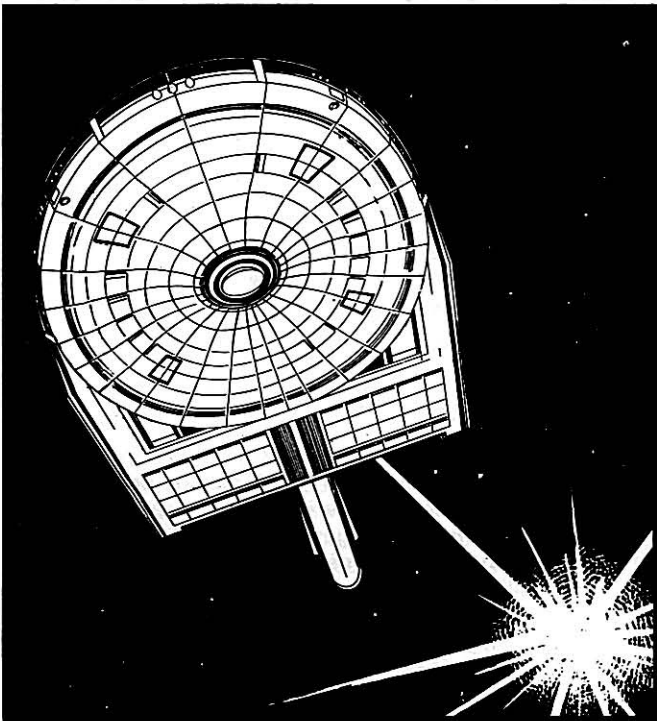
Federation equipment comes from a variety of manufacturers. As can be imagined, there are over one million separate parts catalogued in Star Fleet Quartermaster listings. From the mighty warp engines down to the smallest bolt, every ship part in the Federation is given a parts number by the Materiel Command. Official Star Fleet parts are not the only ones cataloged; every known ship part, government or private, are cross-referenced by manufacturer, procurement center availability, substitution possibilities, prices, and so on. Fortunately, sophisticated computer programs make this manageable.

It is beyond the scope of this manual to deal with all the possible parts that make up a starship. Instead, only the major systems are covered here, including control and guidance systems, propulsion and power systems, deflector shield systems, weapon systems, and superstructure and support systems. Little will be found here on what the systems do or how they perform; that is left to other reference works. What is given, however, is information on manufacturers, design notes, historical notes, and miscellaneous facts pertaining to the system.

Even though only a few corporations seem to dominate all construction of ship's systems in the UFP, many subcontractors are used. Also, many systems are licensed to other corporations for construction. So even though the FWA-1 engine may have been designed by Shuvinaaljis Warp Technologies, a particular FWA-1 engine may have been built by Johansen Industries.

System Type Designations

Type designations were not assigned to ship components until Stardate 2/00. Therefore, many early systems may have capabilities that seem out of place when looking at their letter code designations. For example, the FWH warp engine was in use two years earlier than the FWA-1. Please keep in mind that alpha position does not mean design or use position.



CONTROL AND GUIDANCE SYSTEMS

COMPUTERS

Computers have been used from the beginnings of space travel to control all of a starship's functions. Just as the discovery of Dilithium was vital to the development of current warp technology, however, something just as vital occurred in computer development. Most other ship technology advancement was dependent on the development of the M series of computers. This development was not without its incidents, as will be seen.

L Series

Early models, such as the L-1 through L-11 are not in general use at this time. Historical works, such as the standard *Historical Development Of The Starship*, by D.T. Poole, cover these items and other similar early developments no longer in service and thus not appropriate for this work.

Shiputer Corporation's L-12 computer is significant because it allowed the FIA engine to be used. Until the L-12's development, the control of the the new breed of impulse engines, represented first by the FIA series, was tricky at best and impossible under heavy load conditions.

The L-13 is slightly more powerful than the L-12 but not much different in most respects. Designed and constructed by Perandis CompWorks, it came out almost at the same time as the FIA warp engine, but because the FIA had been designed for the L-12, the L-13 was not widely accepted for several years while Perandis looked elsewhere to find a system to help them sell their design.

Though the L-14 was designed by Shiputer Corporation to operate the FSG shield defense system, it eventually saw wide-spread use in vessels designed to operate other systems as well. Its reliability became an industry standard, and Shiputer's reputation soared.

In Stardate 1/75, a new computer company was formed that has come to dominate shipboard computer systems. The head designer and owner of Daystrom Data Concepts was Dr. Randall L. Daystrom, the father of the now infamous Dr. Richard Daystrom.

The development of the M-1 computer ushered in a new era of astronautics: constructions including new warp engines using dilithium crystals. The later development of the M-2 allowed for the development of the second generation of warp technology, the FWB engines.

After this, computer development and warp engine development seemed to be tied together, and so it was no surprise when the M-3 computer and the FWC warp engine were developed jointly at an immense Earth orbital construction/research center owned jointly by Shuvinaaljis Warp Technologies and Daystrom Data Concepts. The M-3 was very successful, but early models had a tendency to crash in the middle of a warp program. The M-4 was the last successful computer designed by Randall Daystrom. Its development allowed for the development of the FWC-2 engine for tandem drive vessels.

Richard Daystrom took over Daystrom Data Concepts when his father died in 1.93. He embarked on a research project that ended in total failure – the M-5 Duotronic computer. The M-5 was designed using Daystrom's mind patterns for the thought patterns of the program, a design concept with great possibilities, except that Daystrom was mentally

unbalanced. The M-5 was destroyed after it had wreaked much havoc upon its testers, and similar work has been banned.

In the latter half of 2/0900, the M-6 computer became operational. This computer was designed by the Daystrom corporation, which survived the death of its founder and son, as most large corporations tend to do. The development of the M-6 was vital to the development of the powerful FWG engines, indicating a return to the coordination between warp technology and computer technology.

PROPULSION AND POWER SYSTEMS

There are currently six categories of starship propulsion and power systems in Federation inventories. These include warp engines, the experimental transwarp engine, micro-warp engines, impulse engines, sub-light engines, and power generators.

WARP ENGINES

Warp engines produce power through the controlled annihilation of a delicately balanced mixture of matter with antimatter. This power is used to propel a star vessel at faster-than-light speeds, and the excess is diverted to the ship's power grid for distribution to most of the ship's other systems. It was this invention by the Alpha Centauran scientist Zephram Cochrane in roughly 0/4812 that led to the exploration of the stars.

In 0/6511, when the Vulcans were encountered, it was discovered that they, too, had a warp drive. Both designs were roughly compatible, and a much improved version evolved. Many different warp drives were designed over the next hundred years or so, but most of these were limited to vessels of Class IV or smaller, and maximum speeds were lucky to reach Warp 5.

One of the largest problems faced was control of the power systems. None of the L Series computers could handle the immense speeds needed to process the data fast enough for the larger matter anti-matter reactions in tandem-engined vessels. Though the technology existed as early as 1/5000 to design and build faster engines, not until 1/7910, when the M-1 computer became operational, did it exist to operate them. The M-1 had the capability to handle cruising speeds of Warp 5 on Class II to IV tandem-engined vessels with emergency speeds of up to Warp 6.

Most scientists working with warp power systems felt that the maximum warp speed would be increased even more with the use of the M-1 computer, and an improved model of the FWH-1 was ready to be tested before the FWH-1 model even went into full production. This engine, the XFWH-2, was designed for speeds up to an incredible, (at the time) Warp 8. The M-1 could not process the data fast enough, though, so the design was shelved. Fortunately, Daystrom Data Concepts Inc. was already hard at work at advancing the M-1 series farther, and subsequent events would complete the link between computer development and warp drive control technology. When the M-2 computer became operational, the data processing speeds being looked for were attained, and warp engines again pushed the computer's design limits.

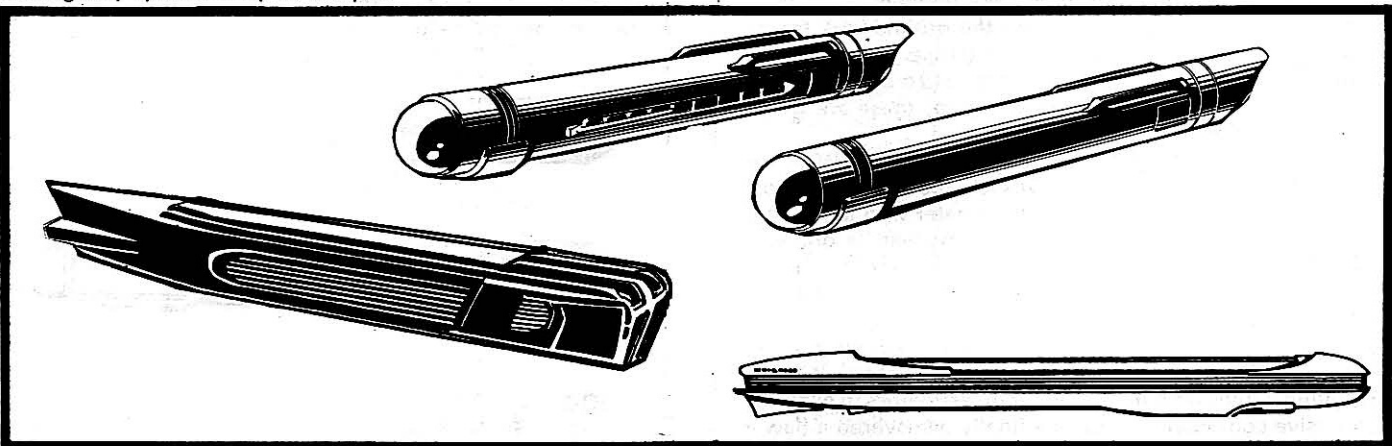
FWA-1, FWB-1

The design differences between the FWA and FWB engines were minor. The FWA was designed for vessels of up to Class III, whereas the FWB could be used on vessels up to and including Class VI. The imaginary Warp 8 was not only attained, it was surpassed on small vessels equipped with one FWA-1. On Stardate 1/8211.17, the *USS Jasokhe*, a Class II research ship set a new speed record of Warp 9.346. The vessel's Vulcan pilot, Captain S'Loatta, was heard to remark that it was only logical that the vessel travel at the record speed because "the equations dictated that it would." The same stoic Captain later remarked that speeds of Warp 10 were impossible because research showed that the data handling capabilities needed were unattainable.

FWC-1

Toward the end of Stardate 1/85, Captain S'Loatta was to be proven wrong by the advent of the M-3 computer control system. Surprisingly enough, it was not Shuvinaaljis Warp Technologies that designed the next stage of warp engines.

The UFP had decided 10 years earlier that the stagnation in warp technology might be cleared up by encouraging competition in the power industry. Low-interest loans were made available to corporations (not individuals) who could prove they were capable of generating designs and handling production techniques. Only after the loans were announced in a widely publicized press conference did the UFP discover that only Shuvinaaljis Warp Technologies had the know-how to build warp engines, let alone make design advances.



FWH-1

Two astonishing months after the release of the M-1 computer, Shuvinaaljis Warp Technologies of Vulcan had the FWH-1 warp engine operational, and it was in production after only six months of trials. To this day, Shuvinaaljis remains a leader in warp engine design.

Shortly afterwards, Dr. Harold S. Leedstrom, a scientist once fired from Shuvinaaljis, set up shop on his own, taking out the first of the much-touted government loans and proving that the idea was not the boondoggle the press had made it out to be. While working at Shuvinaaljis for a number of years, Leedstrom became convinced that he could break

the Warp 10 barrier. His superiors could not contend with his haughty attitude and fired him. He promptly gathered others who were disgruntled with their present employer, formed a corporation, and took out the loan. His entire design team from Shuvinaaljis joined him and eventually formed the core of Leeding Engines Ltd.

They formed a good working relationship with Daystrom Data Concepts, and so they were given the first crack at the M-3. They had the engines ready when the computer became operational; the FWC was designed to deliver 25% to 35% more power to combat systems than any previous engine. On the *USS K'Ree*, a large (for its time) Star Fleet vessel turned over to Leeding Engines for research purposes and modified for the test, Leedstrom mounted a single experimental FWC engine. Captain Joshua Abrams, who took the vessel out for a trial run of 45 days, surprised everyone by turning in a cruising speed of W8 and an emergency speed of W10.

In later years, Leedstrom also formed a good working relationship with Chandley works. The FWC-1 was used on the popular *Chandley* Class vessel.

FWD-1, FWE-1

Shuvinaaljis Warp Technologies responded to the challenge with an engine using the M-2. Their design, the FWD engine, could handle relatively large vessels at good speeds. Its major advance was in the stress the engines could handle on the larger vessels.

The competition between Shuvinaaljis Warp Technologies and Leeding Engines Ltd. intensified to the point of corporate warfare. Rumors of piracy and theft from corporate vaults circulated widely; later, many were found to be true, and both corporations have since been found guilty of criminal acts. Research personnel were found dead in their offices at Leeding, which only intensified the warfare until Leedstrom was found dead at home, a small pistol in his hand. Foul play was never proven, and to this day no one is sure whether or not Leedstrom committed suicide or was the victim of a very elaborate plot.

The FWE was the last engine to bear his personal imprint. Not only could it use the old M-1 computer, but it also enabled even larger vessels to be built. For the first time the Federation was capable of building a vessel of over 180,000 mt.

FWA-2

In 1/9100 Shuvinaaljis Warp Technologies adapted the L-13 and M-1 computers to their FWA engines, from which a new model was derived, setting the groundwork for the redesign of all engines produced to that time. The new model retained the FWA classification, with the old model becoming the Mark 1 and the new the Mark 2; today these are known as the FWA-1 and the FWA-2.

With modifications to the basic design, the FWA-2 engines could be used on larger vessels than the old model. Although the warp speeds were no greater with the FWA-2, the power generated for combat systems was. In one way, the FWA-2 was a step backwards, as the stress the engines could handle was not as great as the FWA-1 could, and overall maneuverability was not as great.

The engine design fell under a cloud when the first test ship exploded during trials pushing the engines to W9. The resulting explosion left nothing for investigators to examine. Extensive computer simulations finally discovered a flaw in the computer programming, and the engine was cleared for general use.

FWC-2

One year later, in 1/9200, Leeding Engines Ltd. adapted their FWC engine to use M Series computers on single-engined vessels. As with the FWA modification a year earlier, the original model became the Mark 1, and the new derivation became the Mark 2; now these are the FWC-1 and FWC-2 engines.

Although it seemed a needless expense by many, once the system had been tested the doubters were silenced. The high speeds expected were not attained; in fact, the speeds were slower. Though stress tolerances were slightly better, the overall reliability of the engine system suffered. Overriding all of the disadvantages, however, the power increase was astonishing, with roughly 50% more power being coaxed from the engine.

After initial tests on single engine vessels, Leeding acquired the new M-4 computer from Daystrom Data Concepts, becoming the first manufacturer to use the M-4. They used it to control tandem FWC-2 warp engines in production vessels. Again, the size of vessel was limited compared to those available with tandem FWC-1s, but the power output was increased about 40%.

FWE-2

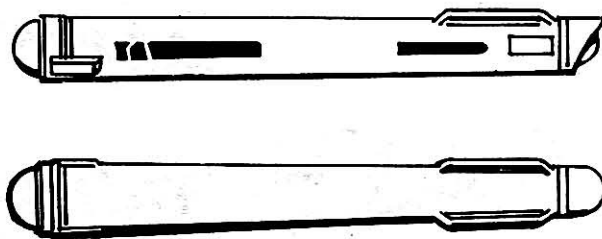
With the advent of the Four Years War, the UFP had such dire needs for warp engines that research almost halted in favor of expanded production. Normally in a war, research expands and technological advances take place over night, but the Four Years War was an exception to that centuries-old rule. Because the construction of warp engines was controlled by so few corporations, every person was needed to expand construction facilities. Because the technology required to produce warp engines is more advanced than nearly all other industries, scientists and research personnel are required just to build the warp engine construction facilities and oversee their operation.

Although research slowed, it did not stop. Shortly after the Four Years War, Leeding Engines Ltd. produced the Mark 2 FWE. Again, the upgrade did not produce any upgrade in speeds, but the power production was stepped up. The Mark 2, now known as the FWE-2, was, however, controllable by an L-Series computer, the L-13 on the single engine models.

FWF-1

The FWF (now the FWF-1) from Shuvinaaljis Warp Technologies used M Series computers for both single and tandem applications. Its speeds were not as great as on many previous designs, but the stress capabilities were excellent. Though power capabilities were also very good on the large vessels these engines could handle, maneuvering was poorer than had been normal.

The FWF-1 is noted for its use on the *Constitution* Class vessel, proving to be very reliable and sturdy on their 5-year missions. The stories of the punishment these engines could take border on the unbelievable.



FWD-2

The FWD-2 modification of Shuvinaaljis Warp Technologies' FWD engine is most noted for a slight flaw that reduces the stress that it can take compared to its contemporaries. Again, power to combat systems was upgraded at the expense of other design considerations.

Production of this engine was delayed for three months when the main assembly line on *Genoa VI* blew up. Investigations into the explosions revealed sabotage, but no real leads ever surfaced to prove the rumors that Leeding was responsible.

FWB-2

The FWB-2 was an update of the older-style FWB engine constructed by Shuvinaaljis Warp Technologies. At first glance, this engine definitely appeared to be a step back, as its characteristics seem to be worse than the model from which it evolved. The power gain was significant, however, and the resulting maneuvering capabilities made the changes worthwhile. By the time this engine was in production, demand had increased to such proportions that this engine was the first to be constructed in numbers greater than 25,000. Though earlier engine types later exceeded this number, the FWB-2 was the first type to exceed 25,000 in continuous production.

FWG-1

The FWG-1, the latest in warp engine design, was the first real advance in warp engine design in many years. Surprisingly, it was not a Shuvinaaljis Warp Technologies design, but a Leeding Engines Ltd. design. They had modified engines over the years, but this was the first from-the-ground-up design they had offered in 22 years. Nevertheless, this engine has led to speculation that Leeding may emerge as the dominating force in warp drive production, with the experimental transwarp engine being developed by Shuvinaaljis Warp Technologies seen as the only hope that Leeding's rival has of keeping pace.

The FWG-1 was the first engine that could handle vessels over 270,000 mt. It offered excellent stress characteristics, and the power it sent to combat systems was outstanding. It was designed to the use of the M-6 computer, the first usable computer advance in 18 years.



TRANSWARP ENGINES

Currently, the FTWA is the only transwarp engine model in existence, and only two of these are operational. Shuvinaaljis Warp Technologies, the designer of this revolutionary new engine type, has been extremely reluctant to reveal the technology behind the engines, giving rise to great speculation as to how the FTWA works. Some say that even the scientists who built it are not sure.

What is known is that the engines and the new transporters work in tandem. Basically, the ship puts a transporter field around the ship's engines, which have the ability to use this field in conjunction with the warp envelope, with the ship in effect beaming itself ahead in the envelope. As long



as the transporter field is activated the ship can attain phenomenal speeds, reaching Warp 15 in an emergency, and cruising at Warp 14. Though the transporter technology is reported to be similar to that of standard personnel or cargo transporters, the field generator mounted in the engine nacelles is much larger than has ever been constructed.

The two operational engines have been mounted on the *USS Excelsior*. The vessel has only had one trial run to date, that being its unplanned and unsuccessful pursuit of the *USS Enterprise*. Even if sabotage had not been performed on the engine control system, functioning was not assured as the engines had not yet been tested on the vessel, which had only been recently towed to the Space Dock. The projected power output indicates that, if the vessel is successful, it could change the course of Federation – Klingon/Romulan relations, the possible weapons usage and maneuverability theoretically tremendous.

MICROWARP ENGINES

There is only one microwarp engine design in use today, the FMWA. Produced by Shuvinaaljis Warp Technologies in Stardate 2/1200, the engine filled a hole long left open. For many years, the only way to move a few people or small amounts of valuable cargo was aboard a full-size ship, such as the *Mission* Class II courier. The expense of building and operating such a vessel was prohibitive to all but the most vital of transportation missions.

One day Shuvinaaljis scientist Paul Anders was riding in a small shuttlecraft between an orbital construction site and his planet-side home when an idea came to him. He reasoned that if he could mount miniature warp engines on the shuttle, he could cut inter-planetary system costs by a very large percentage. Though he knew that miniature warp engines were considered to be something existing only in science fiction novels, he took a thirteen-month leave of absence from his regular duties to work on the idea. What evolved was the FMWA.

Current technology does not foresee any advancement in design of microwarps, so the Shuvinaaljis basically has a monopoly on the engine. Leeding's microwarp has only cosmetic changes, its operating statistics remaining the same.

IMPULSE ENGINES

Impulse engines are reaction thrusters used to drive a ship at near-light speed for in-system maneuvering. The excess power can be diverted as the power from the warp drives is.

Many attempts have been made to use tandem impulse drives on vessels. For some unknown reason, whenever the tandem engines are activated, the warp drives refuse to work. It seems likely that the use of two impulse drives at the same time in such a small area creates a magnetic disturbance that causes an imbalance in the matter/antimatter reaction.

FIA

In 1/7600, Smith & Smythe Motor Works, Ltd. put into production the first mass-produced impulse engine. Although many different types of reaction drives were used previously, the FIA was the first engine to be used in quantity on UFP military vessels. It was useful only on vessels up to Class III, however, severely limiting the size of vessel that the UFP could field.

The FIA was produced in three configurations, Marks 1 through 3; now known as the FIA-1, FIA-2, and FIA-3, these produced varying amounts of power usable for ships of different classes. This versatility set the standard for all impulse engines that followed, though some were found to have the same maneuver efficiency characteristics and thus are little used.

FIB

In 1/8100, Smith produced the FIB to meet the demands for an engine to be used on larger vessels. The FIB is perhaps the biggest failure among impulse engines. Of modest power, it was hoped that it could be used as widely as the FIA series, but this was not to be. The first time the engine was tested it created a disturbance in the vessel that literally shook the vessel apart. Fortunately, a quick-eyed engineer spotted the problem immediately and shut the engine down. This was just the beginning.

The FIB-2, the worst of the three models, was found to be completely unstable except in one configuration: on the *Larson Class VII Destroyer*. It has been removed from service in all other uses, where its reliability is so low (D) that its maintenance costs are prohibitive.

The FIB can be replaced with the FID in most uses, delivering more total power for the same movement efficiency.

FIC

Because of the failure of the FIB, the demand for engines to handle larger vessels still remained. Nine years after the introduction of the FIB, a new company, Kloratis Drives, began to market the FIC impulse engine, which could handle Class XI ships, a new record. All three configurations are successful.

FID

Engine development continued at a moderate pace. The FID, built by Smith & Smythe, was in development during the Four Years War, but did not see production until the war had ended. The FID, capable of handling up to Class XV vessels, was the first impulse engine to be extensively licensed for production around the UFP. It marked a plateau in impulse engine design that continued for twelve years after its introduction.

FIE, FIF

A breakthrough in design allowed the FIE to be hooked up to an M-1 computer, giving a tremendous increase in power capabilities. The power output was double the FID in most cases. Designed by Kloratis, it enabled them to dominate the impulse market for almost five and a half years until the introduction of the FIF models.

Designed by S & S, the FIF took the best qualities of the FIE and improved upon them. When first released, Kloratis sued S & S over patent and copyright infringements. But when it turned out they had illegally used many of S & S's systems in the FIE, they quickly worked out a mutually satisfying agreement.

FIG

The FIG is the most recent entry in the impulse market. Designed by Kloratis, it is currently not selling very well. Designed to handle very large vessels, the system can really crank out the power. However, the system is being plagued by malfunction after malfunction. At this time, the engine has gone into limited production. The first 175 off the assembly line have been recalled in an attempt to correct many of the problems.

FMIA

In 2/0900, S & S released the FMIA, the first micro-impulse engine. It was the advent of this engine which spurred research into micro-warp technology. The engine has proven to be extremely reliable in the field, leading some to say it is the best engine on the market of any size.

DEFLECTOR SHIELD SYSTEMS

Deflector shield systems are more commonly referred to simply as shields. Many people new to ship system technologies do not realize there are two general types of shields. The first type is known as navigational deflectors, the second as defense shields.

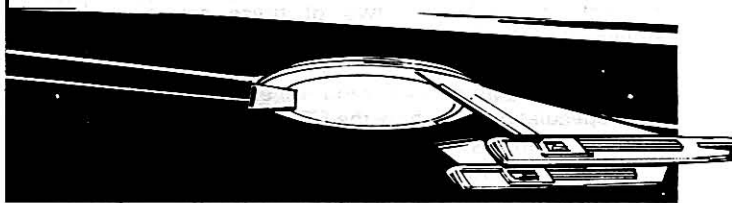
NAVIGATIONAL DEFLECTORS

Navigational deflectors are common to all vessels that ply the spaceways. In the early days of in-system travel vessels were not equipped with navigational deflectors of any type. They naturally took quite a beating from micro-meteorites, meteorites, small asteroids, and other space debris. Large obstacles could normally be avoided, given enough notice, but small objects were difficult to detect in time.

Scientists searched for a way to destroy the objects before they hit the ship. They looked back to Terra's late 20th- and early 21st-century so-called 'Star Wars' defensive systems. At this stage, it must be remembered, Terra had not yet developed space travel aside from visiting their own moon a few times. Nonetheless, systems had been developed to defend the nations from each others' ground-to-ground, long-range missile systems. In the late 20th century, the United States had the foresight to develop a way to destroy enemy missiles before they had the chance to re-enter the Earth's atmosphere. Many of these systems, built on platforms in orbit, are considered the forerunners of today's Monitors and other system defense vessels.

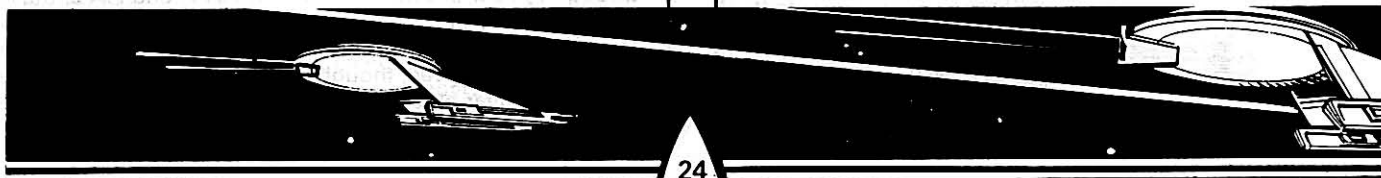
From the defense systems sprang the idea of defending installations at ground level with energy shields. Early shields were very small, usually protecting an area not more than a hundred meters across, an area that was not to grow in size for roughly another 150 years. When space travel became a reality, however, small shields were just what was needed. With the advances in power sources, computer systems, and miniaturization, astronautics firms were able to adapt these systems to their starship designs.

Thus, small navigational deflectors have basically remained unchanged to this day. There are minor variations, of course, but all ships of all cultures carry the same basic systems. Most navigational deflectors protect areas that are the same size, requiring several to cover a large vessel. The differences in the deflector systems used by the Federation are largely cosmetic, and the navigational deflector system usually is purchased with the defense shield system.



DEFENSE SHIELDS

After many years of relatively peaceful space travel, conflict between vessels required defenses be built on starships. Ways of trying to increase the power of navigational deflectors to defend vessels became a research priority. The ways and means of early space combat were extensive, though



much of the equipment used, even in the Romulan War, would be considered almost comical today. After the war, research was stepped up to an intensity never seen before, but still it took 50 years before a breakthrough was finally achieved.

As is often the case when a new weapon system is developed, developers also seek ways to defend against it. At the same time that the FL-1 laser was being developed, research was feverish following a recent breakthrough in navigational deflector technology. A way had been found to increase the power to navigational deflectors so that they could protect against larger objects. Until this time, deflectors had a tendency to buckle the hull when power was increased.

With the breakthrough, an energy transformer stepped up the power levels being sent through the deflectors without buckling the hull, and gave an interesting side effect. Protection could be extended farther out from the ship, and a new control system allowed the energy to be channeled in any direction desired. This directional ability worked so well that part of the system could protect the hull surface a different intensity than the deflectors. The company responsible for this amazing discovery was Landauer Space Dynamics Inc. of Terra.

Thus, the defense shield became a reality. It did not take long for the military mind to realize that with the directional abilities the system could now be adapted to use on planet-side bases as well as ships and outposts in space.

FSA

On Stardate 1/79, Landauer SysTech Ltd. released the first defense shield generator that made use of their earlier breakthrough in energy transformer technology. Their Mark 1 Defense Shield, now termed the FSA Shield Generator System, was an instant commercial success. Spurred on by the influx of usable cash, and unable to match production to the demand, Landauer expanded its operations, gearing up several new production facilities per year for the next 5 years.

Dr. Randolph Webbe, the inventive genius responsible for the new transformer, was given free reign and virtually unlimited credits for research and development, and work was begun almost immediately on a new transformer design that was to result in the Mark X Double Phase-Shift Transformer in 1/85.

FSC

Backed by the immense personal wealth of H. R. Charlottes, a company headed by Dr. Elizabeth Charlottes released its version of the Webbe shield in 1/83, overpowering Landauer in a bitter litigation involving supposed irregularities in registering Landauer's formerly exclusive design. This shield used the Webbe single phase-shift transformer of the FSA, but modifications to the original design gave it slightly more output power.

FSE

In 1/84, also backed by enormous wealth, Surelox Systems, a branch of the Leeper-Fell industrial conglomerate, enters the defense shield marketplace with yet another pirate of the Webbe system. Its low-power, single phase-shift transformer gave it only marginal advances in defense capabilities, but the FSE established Surelox as a major contender.

FSG

Charlottes Shields, Inc., released this up-powered version of the FSC in 1/86, in a bid to capture the market. With its maximum shield power of 15, it was speculated that the single-phase transformer had been pushed to the limit with this shield generator. With its release, Charlottes gained the upper hand in this very competitive market, though it was not to keep this position long.

FSB, FSD, FSF, FSH

On 1/8705.21, a trembling Dr. Randolph Webbe announced a major breakthrough in defense shield technology, revealing a working prototype of his double phase-shift transformer. This breakthrough, cloaked for three years in complete secrecy while all bugs were ironed out, gave twice the defensive shielding for the power. It was matched to Landauer's Mark 1 system to create the Mark 2. In this one brilliant research stroke, Landauer, overextended because of unexpected competition from the Charlottes and Surelox systems, regained its initial lead.

Stung by Landauer's marketing coup, and bolstered by its precedent-setting litigation with the Webbe single-phase transformer, Charlottes Shields introduced their own systems upgrades with the simultaneous introduction of their Mark Ia and Mark IIa systems. Using the double phase-shift transformer, declared by the Federation courts to be in the public domain (speculation about high-level pay-offs was never proven), the Charlottes Marks I and II were more powerful than the new Landauer Shield. Now dubbed the FSD and FSH deflector shield generators, these systems are said to be responsible for Landauer's subsequent collapse.

Keeping pace with the other companies and riding on the coat-tails of the legal precedents set by Charlottes Shields, Surelox upgrade its Model A system with the new double phase-shift technology. Now known as the FSF, their new system, introduced 1/90, allowed them to remain marginally competitive.

FSI

In 1/89, when Landauer realized that Charlottes Shields had a virtual strangle-hold on first place in the shields market, it fired its chief executive, William Wyandotte. Backed privately, Wyandotte lured several members of the Landauer design team to join him in a speculative research venture. In 1/91 they pioneered the trinary transducer system that turned the single phase-shift energy transformer into a high-powered shield generator, delivering three times as much shielding for any given amount of power. Furthermore, the new system proved that the old maximum shield power limit of 15 could be extended to 16.

Forming Wyandotte Defense Shields Corp. to produce the new generators, they leap into the marketplace, nearly eclipsing the others, despite the reliability drawbacks their generator suffered. Because the shield gave useful shielding capabilities to larger vessels, the Wyandotte DS1 (now known as the FSI) was bought in numbers disproportionate to its state of development. It was not until 2/04 that the FSI's reliability reached the level of the earlier-model shield systems.

FSJ, FSK

In a desperate bid to recapture their share of the market, Landauer launched an all-out effort to upgrade their Mark 1 system to be the first generator to deliver the full maximum shield power of 16. Their Mark 3, designated the FSJ, was to be the undercapitalized and over-extended industry founder's downfall, and on 1/9404.27 the company went into receivership.

Drawing on its parent company's reserves, Surelox purchased controlling interest, paid off all debts, and took over production of all the Landauer shield models, including the FSA and FSB. It geared up production of the FSJ as well, also producing the FSK double phase-shift model. This gave them a solid base for sustained competition in the shield market, where they produced six of the ten high-reliability models available. The takeover marks the beginning of "The Great Shield Wars," as the next five-year period has come to be known in the industry, an obvious parallel to the Four-Years War with the Klingons.

FSL

To entrench itself in the high-power end of the market, Wyandotte released the FSL, a modest upgrade of their FSI technology. The announcement, ill-timed to say the least, reached the trade journals on the eve of the Surelox takeover of Landauer SysTech Ltd., which news totally eclipsed the Wyandotte press release in the public eye. To ship designers, however, the announcement was public confirmation that Wyandotte had improved the reliability of its FSI system considerably, though it would be another ten years before the A reliability of the single- and double-phase-shift systems.

FSM, FSN, FSO

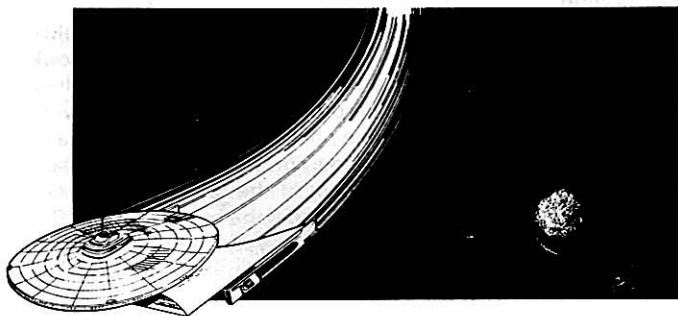
In 1/96, with a one-two punch followed by a roundhouse, Charlottes Shields released upgrades of their existing single- and double-phase-shift systems and the most powerful trinary transducer generator. Timed to be released throughout the Federation on the same day, Charlottes' megacredit media blitz proclaimed their undisputed lead in the deflector shield industry. With the FSM, they had the most powerful single phase-shift shield generator, with the FSN, its double phase-shift modification, and with the FSO the most powerful trinary system.

The next two years were the climax of the Great Shield War, as Wyandotte and Surelox entered into secret price-fixing pacts geared to erode the Charlottes' market. The resulting price war, backed by the Leeper-Fell corporate fortune, eroded the fortune of H. R. Charlotte, as company sales fell to near-zero credit volume and production lines halted because of the resulting glut of generators that remained in the Charlottes warehouses. It was not until the Federation High Court proved collusion that the price war was broken, but the damage to Charlottes Shields financial structure was all but impossible to reverse. Surelox, which had secretly bought substantial blocks of Wyandotte stock, was forced to divest itself of all its shares, and was required to pay nominal damages to Charlottes Shields. The net effect was to bring economic parity to the three industrial leaders.

FSP

On 1/99, an aging Dr. Randolph Webbe, who had been nearly forgotten in the economic battles for shield supremacy, announced the application of transducer technology to his double phase-shift generator, quadrupling the shielding for any given power when compared to the invention that started the industry. The FSP was announced by Surelox, produced in limited quantities, and immediately captured the market for high-power shields.

Design problems affected reliability, and it was not until 2/15 when the M-6 computer interface proved feasible that the reliability rose to the levels enjoyed by the double phase-shift models without the new binary transducer. Even with this fortuitous mating, the shield power maximum remained at 16, though unsubstantiated rumors have been fueling speculation that even this limit, like the fabled Mach 1 limit in early atmospheric aeronautics, will fall to concerted research efforts.



WEAPON SYSTEMS

"The only thing different from our beginnings are the ways and means we use to attack each other."

This quote can be found on the first page of the tactics manual used by the Star Fleet Academy. The author and the date it was written are unknown. Since the beginnings of history, there has been warfare, and so it could have been written at almost any time. The first weapon was probably a stick or a stone, and the javelin and archaic pistol are their successors. The particle beam weapons and the laser weapons of the late twentieth century were the precursors of the laser weapons used 60 years ago, which, in turn, are the precursors of today's phaser weapons. The naval torpedo of the 20th century marks the beginnings of today's photon torpedo.

LASER WEAPONS

FL-1, FL-2

The Williams' Mark 1 was the first laser that was capable of firing at any speed other than a slow crawl, and it was the first laser weapon to be accepted Federation-wide. Developed by Williams Weapons of Omicron Theta II, the demand for this weapon was significant enough to turn the three owners of the company into millionaires overnight. Not only did the design allow the weapon to be fired at a ship speed greater than one-tenth light-speed, but the weapon also had an effective range of four times any previous laser system. The system worked well under normal circumstances, but for some unknown reason it lost power at the most inopportune times.

Just one year later, Williams released the Mark 2 improved system. Though it massed 110 tons more and had no more power, its range was increased 20,000 kilometers. The power loss problem of the Mark 1, caused by a faulty chip in the programming system, was corrected at the same time, and later Mark 1s were built with the problem corrected. The Williams Mark 1 has been given the designation FL-1, and the Mark 2 is now known as the FL-2.

FL-3, FL-4

Scientists were stymied with the problem of range for another fourteen years, when Johanson Energy Co-op produced their first production model with a range of 100,000 km in 1/74. In this model, now known as the FL-3, the beam was tightened and held tight by use of a frequency modulator that 'reminded' the beam to stay tight. Use of the modulator also provided a pleasant surprise in that roughly 50% more fire-power was gained at no increase in the power fed into the system.

Johanson used a different computer system, the L-13, to control a power increase on their Mark 1 by 50%, thus making their Mark 2. This meant more fire-power was available in the Mark 2, now known as the FL-4, to be used. The modulator provided the same bonus that it had provided in the FL-3.

FL-5, FL-6

Williams Weapons used the L-14 computer system for fire control on the weapon that is now known as the FL-5, though it took five years of testing before the two systems were made compatible. This increased efficiency and fire-power slightly over earlier models.

Less than a year later, Williams released an improvement, now known as the FL-6. Although no bonus was gained over the previous model, its new power modulator improved the fire-power slightly.

ACCELERATOR CANNON

The accelerator cannon system allowed missiles to be fired at the tremendous speeds required for space warfare. Most missiles used with the system were equipped with nuclear warheads having the destructive power of late-20th-century warheads, which usually was enough to penetrate the hull and shields of any vessel in service at that time.

Loraxial Ltd. was the sole designer of accelerator cannon. Many smaller companies were licensed to manufacture the systems, but Loraxial held all copyrights.

FAC-1

The first accelerator cannon system, now known as the FAC-1, was operational in 1/62. At the time, weapons experts felt that advances in accelerator cannon technology would keep abreast of those in laser technology, but it would be 22 years before any significant advance would become reality, when the L-14 computer was mated successfully to an accelerator cannon system; although the computer had been available for a number of years, the advances in inter-connecting hardware were non-existent until 1/83.

FAC-2, FAC-3

The next year, in 1/84, Loraxial announced production of the system that has become known as the FAC-2. In the interim, cannon design had advanced somewhat. Range and power both were increased by approximately 20%.

Three years later, Loraxial was able to improve the system using the M Series computers. Although range was not increased, use of the M-1 did allow a refined FAC-2 to use a bigger warhead. This new model, now called the FAC-3, was the last cannon to be designed.

PHASER WEAPONS

Before most ship-system research came to a standstill during the Four Years War, scientists involved in laser research had been on the verge of a new discovery. Warren Shilling of HiBeam Energies Ltd., in experimenting with beams of all types of energy, had discovered a way to "phase energy pulses," as they called the technique. The name phaser naturally was applied to the process, which was vigorously explored at HiBeam Energies, and by the outbreak of the war, success was felt to be so close that research continued unhindered.

Tests of the new weapon were conducted at several research facilities after the original scientists had been divided into four groups. The purpose of this was three-fold. First, many times when several groups are working on the same project, fresh approaches could be taken because different viewpoints were being used. Second, secrecy could be handled more easily by breaking the large group into more easily watched, smaller groups at isolated facilities. Third and most important with a new weapon of this magnitude, if one research facility were to be destroyed, the others could carry on.

As it turned out, the break-up of the original design team was beneficial, for the groups did branch off in different directions, ending with different uses for the same weapon. All were able to be put into effect in an individual weapon with the proper control system. Early test-models of phaser weapons had heated up the molecules of the target, causing it to burn, but later developments showed that the phasers were capable not only of a heat setting, but also a disintegrate, disrupt, and a stun setting. On disintegrate, the phaser broke down the molecular cohesiveness of the target, causing them to fall apart completely. On disrupt, they would shatter the target by ultrasonic vibrations set into the beam. On stun, a mild setting, they would overload the nervous system of living things, causing them to fall unconscious.

Security proved to be no problem, and fortunately none of the facilities was completely destroyed, though a project head was killed when one test unit exploded.

FH-1, FH-2

Developed in 1/94, the Mark 1 ship-mounted phaser went into full production two weeks after its successful trials, using assembly lines built before the weapon had even been fully tested. As one might have expected, such hurried production allowed quite a few problems to be overlooked. Many of the initial phasers exploded when used on the disrupt setting, but it took a while to evaluate data and realize that ships were blowing up from using their own weapons. The problem was traced to sabotage in the programming of the L-12 computer used for fire control.

The Mark 1, now designated the FH-1 phaser system, was the smallest ship-board phaser to ever be built. It is one of the few phasers that civilians can purchase and use legally. The technology was miniaturized and refined by Dr. James Wilson, Sr., at Wilson Energies, Ltd., and the first production model of the hand phaser weapon was made in 1/98.

HiBeam introduced the Mark 2, now known as the FH-2, less than a year after the Mark 1 went into production. Range and power were increased slightly, and the modulator used on the old lasers were found to increase damage potential on phasers as well.

FH-3

Nine months later saw the introduction of a new phaser using the M-1 computer. With ranges and hitting power virtually double those of the Mark 2, this much-larger weapon is credited with winning the Four Years War. Many of these weapons were used in action only weeks after rolling off the assembly line, which lay only 6 days travel from the war zone. This weapon, now designated the FH-3, was produced by Mariola Technologies, a short-lived spin-off of Beam Energies now absorbed by that corporation. It, as with all the phasers produced during the war, is still available.

FH-4, FH-5

Basically an upgrade of the same technology as the Mark 1 and Mark 2, Beam Energies' Mark 3 model used the L-14 as the fire control computer. Easier to maintain than the Mark 1 or 2, the Mark 3 gained a reputation for reliability. Because its date of introduction followed that of the FH-3, it is now known as the FH-4.

The Beam Mark 4, now called the FH-5, was still a larger version, giving it extra range and damage capability. It was the last phaser to be put in production during the Four Years War.

FH-6, FH-7, FH-8, FH-9

After the war ended, research still proceeded rapidly at HiBeam Energies, although not quite so desperately as before. The new generation of weapons was designed as a whole, with planned upgrades in range and hitting power. All were to use the M-2 computer, the L series incapable of handling the data processing as fast as was needed.

The first model to see production, the FH-6, is very small for the punch it packs. The FH-7, which HiBeam released the next year, was slightly larger, with range and damage potential increases in proportion to the size increase. The FH-8 and FH-9 followed soon after, completing the range.

The first production models of the FH-9 had problems with control capabilities, but these minor problems were corrected with a modification to the M-2 computer. It was later discovered that modifications could be made to the phaser itself, allowing for the use of unmodified computers.

FH-10

Research to find the solution to the problems of the FH-9 led to the use of the M-4 computer for fire control. Although the link-up was not successful, there were indications that a redesigned phaser might be even more devastating.

Following up on this lead, HiBeam designed the FH-10, which used a significantly different energy modulator than had been used before. The range was not quite as good as

the FH-9, but the damage capabilities were greater and it had only 70% of the mass.

FH-11, FH-12

The greatest range of any phaser to date was attained with the FH-11 in tests on 2/1404.30, but there were problems with beam cohesion, and so the unit was not put into production until nine months later. The FH-11 was nearly 50% larger than the FH-10 and had the capacity to carry the largest punch of any phaser produced up to that time.

Two years later the FH-12 went into production. The third smallest phaser system produced to date, it is considered a good medium phaser, carrying a deadly punch for its size. Warren Shillinge, credited as being the father of the phaser, died the day the FH-12 went into production, and HiBeam Energies has named the FH-12 the 'Shillinge' in his honor.

FH-13

The next year, HiBeam Energies redesigned the FH-11 to use the M-3 computer system for fire control. The project was marginally successful, as the slightly larger phaser that resulted had less power and range than the FH-11 it was based on.

PHOTON SYSTEMS

All missile weapons have the same basic principle: an ejector sends a warhead in a fairly direct line to a target. There have been many types of missile systems throughout history, from the bow-and-arrow and sling-and-rock through the crude pistols and rifles of the 18th through 21st centuries, to today's photon torpedoes. Photon systems can trace their lineage directly back to the torpedoes fired from underwater ships of many cultures, through the warheads fired by the accelerator cannons that the photons replaced.

The accelerator cannons of 1/62 to roughly 2/00 used an accelerator systems to propel a warhead to a target. Large, direct line-of-sight weapons, they were immense machines, massing up to 840 mt. They were impossible to mount on very small craft and range was limited to roughly 100,000 kilometers. What was needed was a small device that could fire a small projectile to a target over 100,000 km away.

Toward the end of the Four Years War, Priscilla Feddric of Loraxial Ltd. had been studying the effects of magnetic fields on antimatter as part of an attempt to develop a smaller, more accurate accelerator cannon. Remembering earlier work at Shuvinaaljis Warp Technologies on a containment system for matter/antimatter mixes, she theorized that these magnetic fields could be made small enough to contain a tiny bit of antimatter. If the container could then be delivered to a target and exploded, she proposed, the antimatter could annihilate whatever it hit.

Unable to convince anyone at Loraxial to seriously study her idea, she worked with Collier Shane in their spare time and finally succeeded in capturing a bit of antimatter in a small magnetic field, which they encased in TriDuralloy. With an antique mortar, they launched their projectile and captured the attention of Loraxial upper management when they destroyed half the parking lot at Loraxial Center XII through a slight miscalculation in trajectories.

From these earthshaking beginnings, the prototype photon missile evolved rather quickly. The launch tube concept was borrowed from submersible craft technology, and the M-2 computer was used to handle programming for the magnetic field generators. The system was operational in six months. It did not require much power to use, and it packed a tremendous wallop, superior to most phaser hits.

FP-1, FP-2, FP-3

The FP-1 system, Loraxial's first operational photon torpedo system, was small, displacing 200 mt. It had an effective range of 120,000 km, and enormous destructive power, but its targeting system was not as well developed as the phaser technology of the time.

Two years later, attempting to create a range of weapons, Loraxial announced the FP-2, a more compact system that could be used on smaller ships. It used the less-sophisticated M-1 computer, but its range and destructive capabilities were not as great as the FP-1. The FP-3, using the L-14 computer, followed, with a greatly reduced range while retaining the punch of the FP-2.

FP-4, FP-5, FP-6

In 2/02, Morris Magtronics, a newcomer to the weapons scene, entered the scene with a bang, announcing the most destructive weapon ever produced. The FP-4 twice the punch of Loraxial's FP-1 to a range of 160,000 kilometers. Simultaneously with the demonstration tests, the company announced its plans to produce a range of weapons, much like HiBeam had when it announced the FH-6.

Soon after, the FP-5 was tested. Slightly smaller than the FP-4 and designed to be used on slightly smaller ships, the test was a failure, and it was eight years until the model saw production. This has been followed by the FP-6, which stepped down the same technology.

FP-7

Loraxial's latest entry into the market has good targeting capabilities but not much punch.

SUPERSTRUCTURE AND SUPPORT SYSTEMS

Because they are so numerous, design and construction details of the superstructure and support systems will not be dealt with in detail, but a general overview of these systems will be given instead. There are many other shipboard systems that are considered standard in construction. These are all generally figured in the price of the hull construction.

HULLS AND LIFE SUPPORT SYSTEMS

Hulls and life support systems are built at one time, usually overseen by one general shipyard. Thousands of companies build these systems, with well over 300 ship air-conditioning manufacturers alone.

Like everything else, hull construction has gradually improved over the years. Research constantly aims at improving the strength of the hull to withstand greater damage. Ships are always built with as many strong interior bulkheads as possible. Often, military vessels have their superstructure strength increased beyond that called for in the design. The cost of this is considered to be well worthwhile.

Hull Designs

Though many people have quipped that you can always tell a Star Fleet vessel because of the shape of the hull, this is not actually true. Most hulls do not follow the familiar saucer-shaped hull originally designed by Chiokis Starship Construction, but its use on most of the prominent military vessels has given this design greater publicity than the thousand upon thousands of designs used in constructing freighters, couriers, and other civilian and small military ships.

There are many standard hull designs available from the major contractors. These standard designs are generally cheaper to build than non-standard ones because of near mass-production capabilities. Construction time is also reduced greatly because all the 'bugs' have theoretically been worked out of the design.

The ship is designed to be compartmentalized in case of emergency. Each compartment can be sealed off and its atmosphere evacuated, the vacuum created smothering any fire instantly. The compartments can also be sealed with its life support intact, isolating trouble areas such as a compartment held by an enemy boarding party.

Air, Water, And Waste Treatment Systems

The air conditioning, waste recovery, water, and, if present, hydroponics systems all are interrelated to conserve the ship's precious store of water. Water use for most personal hygiene is replaced with ultrasonics, and all waste is recycled to reclaim water in it.

Emergency Power Systems

Batteries are carried on most vessels to store power for emergency use. Normally not enough is stored to power weapons or even shields, although there have been reports that a few enterprising engineers have coaxed batteries to do just that in a rare instance. Batteries are normally used for life support systems. Use for anything else will greatly hasten the drainage of them.

Fabricators

Material fabrication units have changed the course of history. They have been considered one of the greatest inventions of all time. Most people today are so used to the idea of fabricators that this is forgotten. With a fabricator of one type or another even in many homes, or in a neighborhood like the corner grocery of long ago, they are taken for granted. Fabricators have eliminated the need to carry an enormous amount of inventory aboard ship.

It is common knowledge that fabricators, including food processors, use patterns stored in computer memory to construct what is needed. What many people do not realize is that each time a fabricator is used a notation is made of what item was made. A royalty is then paid to the company owning the rights to that product's design, formula, or recipe.

NACELLES AND ENGINE MOUNTS

The outward appearance of warp engine nacelles and impulse engine casings would lead one to believe there are only two or three warp engine types, though this is far from being the case. It is the warp engine nacelles and their mounts or the impulse engine casings that are generally similar in design, though the engine housed inside could be vastly different from one ship to the next.

The warp nacelles are standardized for several reasons, the primary being ease of construction and lower construction cost. Second, when a standard design is used the design and construction bugs that plague new equipment designs are eliminated.

Warp engines have always been mounted away from the vessel as far as was practical just in case of trouble. Though this is the practice, less shielding is not used than if the engine were mounted directly on the hull, as many think. The Federation simply feels that heavy shielding coupled with the distance increases the safety factor. All warp engines in the Federation are equipped with ejection systems to fling the warp drives away from the vessel in case of emergency. If a warp engine overloads or becomes unstable, it may be ejected, with the vessel able to move rapidly away under impulse drive.

Some of the control equipment aboard the vessel requires special leaded glass to contain possible radiation leaks. When this equipment must be serviced, heavy radiation suits that completely encase the wearer are essential.

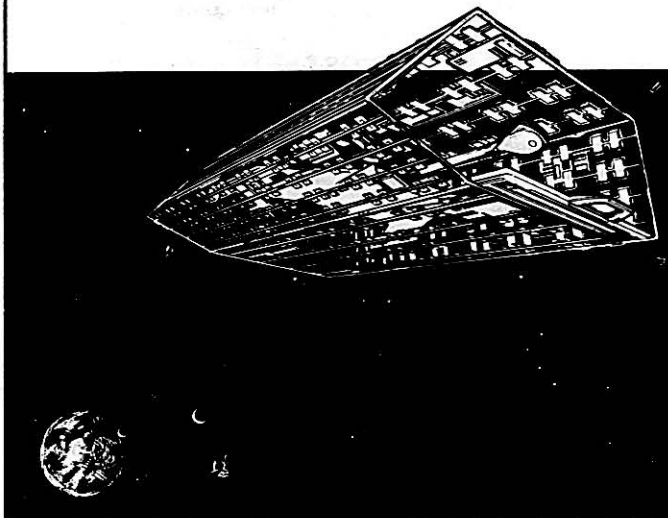
The impulse engines are mounted directly into the hull, and can only be removed by disassembling them. Though they have special shielding to contain radiation, they are considered so safe that they normally are mounted in the main hull of the vessel. Rarely does a crew member even need protective clothing when servicing them.

SHIP CONSTRUCTION FACILITIES

Ship construction facilities vary widely in design and capability. Most today are located off-planet for ease of construction and because very large vessels do not have the atmospheric capabilities that allow them to be built anywhere else. Chiokis Starship Construction has located many of their facilities in asteroid systems, where raw materials are close at hand and very cheap, holding construction costs down. A small energy field is set up around most facilities to protect from wandering debris and unwanted intruders.

Coming upon a ship construction facility in space can be an unusual sight, with half-finished ships and miscellaneous vessel components floating around. Storage in space is free, and room is plenty. Tenders and small work bees take raw material to large fabricators where the sheets of hull material are turned out to exact specifications.

These facilities normally are large skeletal affairs designed to use as small an amount of material themselves as possible while still providing a work platform. They usually have small storage, workrooms, and offices built along the framework wherever they be convenient. Usually the largest of these contains a transporter, as most workers either live planetside, on an asteroid base, or on a ship and commute to work via transporter. These large reception structures also contain mess facilities, medical stations, and offices where problems can be discussed without the need of spacesuits.



Construction Procedures

Ship construction in a construction/repair facility usually begins with the hull, which is constructed in place using gravitics and force fields to hold it steady within the facility. Many times, a hull is built at one yard and then towed to a nearby engine contractor, where the warp engines are added. If the construction all takes place in one facility, usually the engines are assembled at the manufacturer's plant and then brought to the facility for addition to the hull. Until recently, weapon systems are not added to the vessel until it had passed its initial trials. Lately, however, the practice has been to build the vessel complete with weapon systems before its first tests.

Availability And Cost

When designing and building a starship, cost may play a very important role. To a government, the cost of building a starship is minimal in comparison to that government's total income, and so cost usually is not a factor. This ratio is much higher for a business corporation, however, and it can be staggeringly high for an individual. Thus, when a medium-sized or smaller business or when an individual or group of partners build a starship, the cost of all equipment and for the basic hull must be calculated.

Availability of the various pieces of equipment also may be very important. Starship components are very specialized pieces of equipment, and they generally are not available with ease to anyone but government agencies. Some of the equipment necessary to construct a starship is restricted, either to the seller, to the buyer, or to the user. Quite obviously, buying a warp engine is not as easy as buying a piece of lumber.

CONSTRUCTION COSTS

As budding engineers and designers will note, every piece of a starship costs money. Each table of starship components has a column labeled *COST* (in MCr). The MCr designation is the standard abbreviation for *Megacredits*, or one million Federation Credits. All equipment costs will be given in Federation currency.

CALCULATING TOTAL COST

The total cost of the ship is determined by the cost of all the components required, modified for the mass of the ship. If the design is a new or unique one, a fee for the engineering plans may also be charged.

Estimated Base Cost

When the starship design has been finalized, the designer must total the costs for each component in that design. This is the estimated base cost for the ship. If extensive alterations are required from standard designs, cost overruns may be incurred.

Tonnage Modifier

The base cost of the ship must be increased for the fittings and furnishings that are put in the ship. If the ship is to be sparsely furnished, then the amount necessary for these is much less than if the ship is to be luxurious. The amount necessary to budget for the fittings and furnishings is a function of the ship class and the amount of luxury. Furthermore, as a ship gets larger, there is an increasingly greater chance for inflationary costs to mount up.

Both these factors are reflected in the Tonnage Modifier, which is a function of ship class. The modifier gets larger as the ship displacement gets larger.

Total Cost

Multiply the base cost by the Tonnage Modifier. Add any extra costs, such as design costs and cost overruns. This gives the total cost of the starship.

COMPONENT AVAILABILITY

If the ship is being built by the Federation for Star Fleet use, all components are usually available to contracting ship yards. Certain rare components, however, such as the transwarp engines or Mark VII computer, must be custom-made and are not commercially available. Thus, the *USS Excelsior* carries the Federation's only working transwarp engines. Furthermore, if the ship is being built for use by the private sector, certain restrictions may apply to the commercial sales, purchase, or use of any piece of starship equipment, as detailed below.

The Ship Construction Tables include information on the legality and general black-market availability of starship components. For each component, there is an availability code. This consists of three letters and a two-digit number. The letters give information about any legal restrictions that might apply to the sale, purchase, or use of the component. The number gives information about the availability of the component on the black market and its likely cost there.

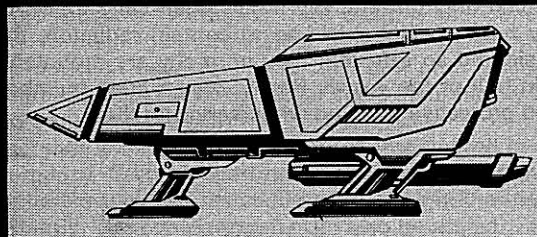
LEGALITY CODES

The first letter is the whether or not the owner may sell the item in question. The second letter refers to the legality of purchase. The third tells whether or not the item may be legally used.

For each of these codes, one of three levels may be used. Any time the letter *L* appears, the item is absolutely legal to buy, sell, or use. An *R* means there is some sort of restriction concerning that item. If the item is absolutely illegal to buy, sell, or use, an *I* is used.

Any restricted purchase components may be purchased legally by an accredited starship construction firm. Thus, by definition, unless an individual runs one of these firms, he may not buy any of these components. Likewise, all restricted sale equipment may only be sold by certified suppliers. Good examples of these cases may be seen in other parts of society. By law, the sale or purchase of certain drugs, like stimulants, sedatives, or some narcotics, is restricted to those individuals having the appropriate permits and licenses. If one does not have that permit, he may not buy or sell that item.

Use of the item is slightly different. Certain pieces of equipment may be used by anyone, without any restriction of any kind. A good example of this would be ship's computers; for these, the user need not have any kind of permit to use a computer; he just activates it. Other types of equipment may be used by those with the proper permits. For example, only firms or individuals with a license to operate warp engines may do so legally. Illegal Use items may not be used by anyone except Star Fleet. An example of this would be most ship's weaponry; if individuals are not Star Fleet personnel, they may not legally use Illegal Use weapons under any circumstances.



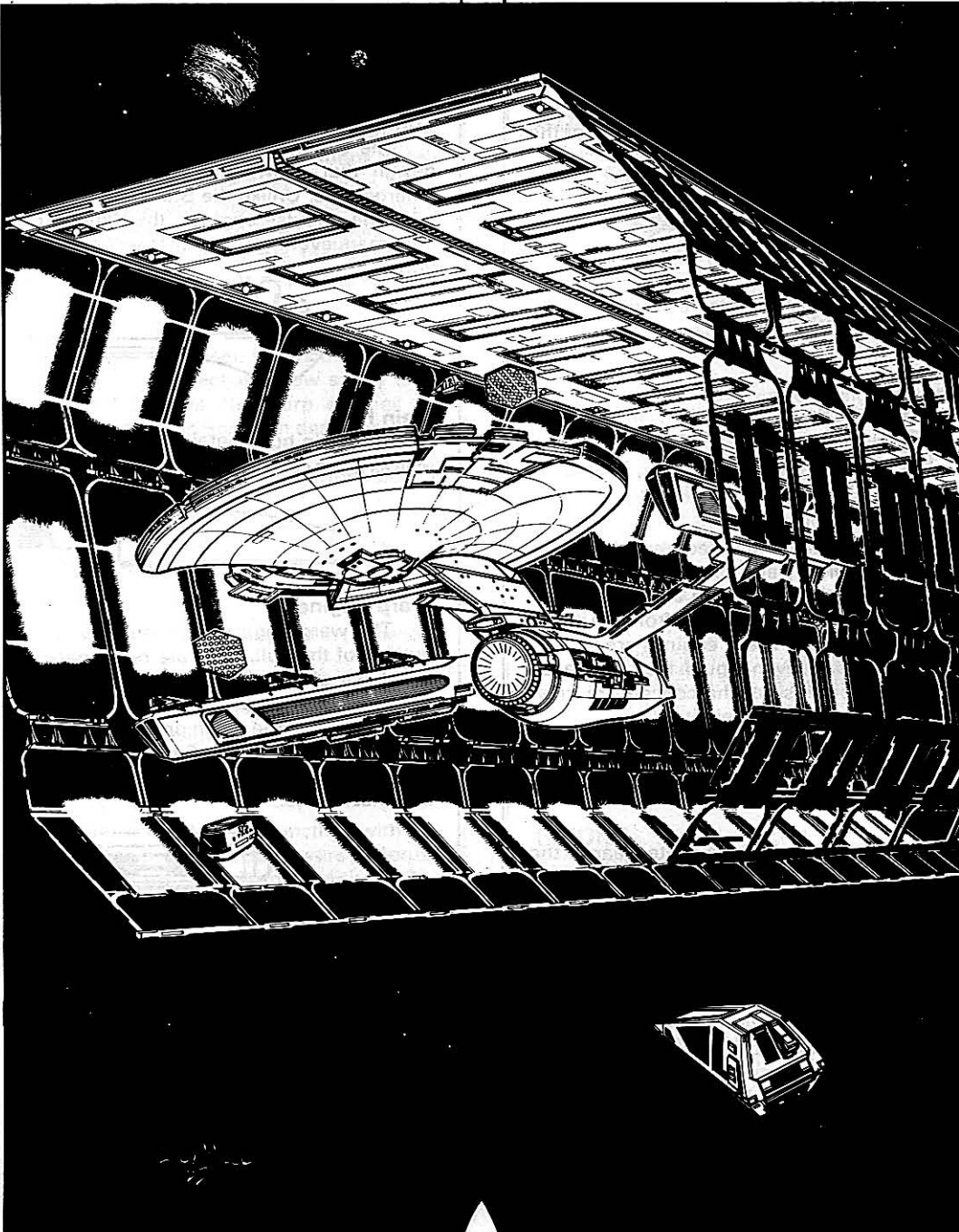
AVAILABILITY CODES

Almost anything may be bought for a price. No matter how legal or illegal an item is, someone, somewhere, has one for sale. Any individual wishing to buy an item within the Federation may do so, but he probably will have to do some searching, and he most certainly will pay much more than the item would cost if purchased legally.

The two-digit Availability Code is an indication, on a scale of 1 to 100, of the difficulty that an individual would have in purchasing an item, either legally on the open market, or illegally on the black market. Obviously, some items will be easier to find than others. Legal Purchase/Legal Use items (like computers) will be very easy to buy, and will have a correspondingly high Availability Code. Restricted components, like warp engines, will not be as easy to find, and

chances are an individual would have to search for a while before he finds such a component. Illegal items, like phasers, are very difficult to find and will have a very low Availability Code.

With some items, there is no Availability Code. This means that the item is simply not commercially available at all. Such items are, like the new transwarp engines, custom-built. This does not mean that an individual could not have the item built, if he had the money. If the item were a Legal Sale/Purchase/Use item, it could even be special-ordered from the company that made the original. For other items, there usually will be a price for which their plans could be stolen and the item reproduced covertly; though this would be an exorbitant amount of money, because industrial espionage is very costly and very dangerous, it is possible.



Warship Design Manual

DESIGN PHILOSOPHY

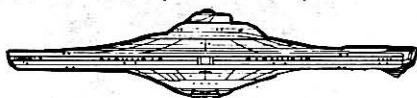


STAR FLEET

Star Fleet ship design has remained consistent for the last 40 years. The saucer-shaped primary hull attached to a secondary hull or engine mount is the most common for all capital ships. Ships built for the private sector will be found in a wide variety of configurations.

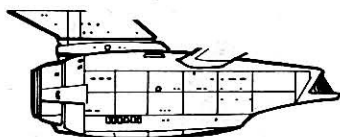
Primary Hull

The primary hull contains all of the ships operating stations except for the engineering section. It is capable of being separated from the rest of the ship in case of emergency. In the case of ships that do not have a secondary hull, the engineering section is located in the lower aft portion of the saucer, just under the impulse drive system.



Secondary Hull

The secondary hull contains the engineering functions of most ships. The sensor array, shuttlebay and secondary bridge are also located here.



Warp Engines

The warp engines are always mounted away from and usually to the rear of the primary and secondary hulls. This allows the engines to be jettisoned during an uncontrolled matter/anti-matter mix, thus sparing the crew from the catastrophic explosion that will occur. These engines are heavily shielded against radiation leaks, even though they are placed well away from the ship, because of the concern for crew safety; this accounts for the heavier weights.



Impulse Engine

The impulse engine is located at the center rear of the primary hull. It is shielded heavily enough that engineering technicians in this area are not required to wear any protective clothing.

Weapons

The Federation mounts its beam weapons in banks because it allows for more effective firing during combat. The standard configuration is one bank firing forward/port, one firing forward, and one firing forward/starboard. Photon torpedoes are usually mounted in pairs that fire forward.

Only in recent years has it become more common to mount any weapons covering the aft of the ship, whether they be beam weapons or missile weapons. This is due to the tactics of the Klingons and Romulans, whose tactics are to fly past an enemy and fire into usually unprotected aft areas with their aft-firing weaponry.

Defense Shields

Federation vessels use the most effective shields for their type and mission requirement. The general opinion is that it is better to spare the crew from incoming fire than to deliver massive blows with the weapons. Because of this, starship captains pride themselves on their abilities to outmaneuver and out-think their opponents.

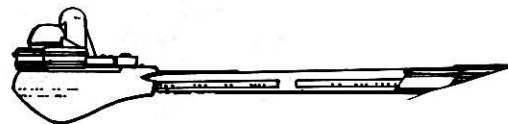


KLINGON IMPERIAL NAVY

Klingon ship design has not changed substantially in the last 60 years. Most all vessels separate the command pod from the main hull.

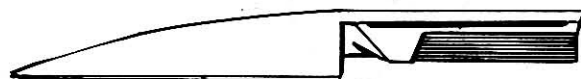
Command Pod

The command pod is mounted on a boom or neck, a design that allows the pod to be jettisoned in case of emergencies. Unlike the Star Fleet primary hull, which contains the impulse engines, the Klingon command pod has only maneuvering retros that will allow it to maintain position.



Main Hull

The main hull contains all the engineering functions as well as troop carrying facilities, shuttlebays, and the engines.



Warp Engines

The warp engines are usually mounted aft and to the outside of the hull. They are not separated from the hull as are those of Star Fleet vessels, nor are they as easily jettisoned. The Klingon nacelles do not have heavy shielding and do not provide much protection from the radiation emitted from the engines. Furthermore, Klingon engineering technicians wear very little protective clothing, making this duty hazardous.



Impulse Engine

The impulse engine is mounted in the center aft of the main hull. Like the warp engines, it does not have much shielding.

Weapons

Disruptors are usually mounted as individual weapons. These fire mainly forward and aft positions, though all arcs of fire are covered.

After the discovery of photon technology, the Klingons began mounting photon torpedoes both fore and aft. Usually the forward torpedo is in the command pod and can be a nasty surprise for an unsuspecting enemy coming to take the prize.

The Klingon use of the Romulan plasma weapon is very limited. This weapon must be used at close range, which is in keeping with Klingon tactics. It is best used with the cloaking device, however, which means using power to remain hidden while closing with the enemy. The Klingon commander would rather use his power to move his ship into his enemy and shoot the entire way.

Defense Shields

The Klingon battle tactics do not lend themselves to using defense shields. Most Klingon vessels have under-powered shield generators because of this philosophy.



ROMULAN IMPERIAL NAVY

Unlike the Klingons and Federation, the Romulans have changed their design style in recent years. The original designs were of a teardrop shape with wings mounting warp engines on the ends. Of course there were variations on this design, but it remained unchanged for over 60 years.

Approximately 15 years ago, Romulan shipbuilders began making ships that looked more like the giant birds they so admire. These designs incorporate the bridge-forward design, and some use a boom or neck to extend the bridge forward.

Warp Engines

The Romulan Navy, like Star Fleet, places the warp engines away from the main hull because crew safety is an important factor. Aside from this, the warp engines are placed wherever they look best, as Romulan designers build their ships for aesthetics as much as for practicality. It is therefore not uncommon to find ships with engines forward.



Impulse Engine

The impulse drive system is always located in the center-aft position. It is heavily shielded.

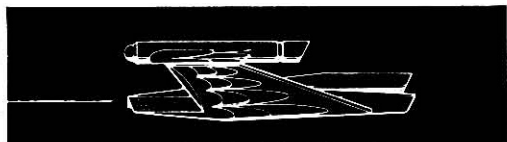
Weapons

The Romulans have three basic weapon types that they can incorporate into their designs: disruptors, plasma weapons, and photon torpedoes.

Disruptors are usually mounted in banks so that all fields of fire are covered equally.

The plasma weapon is used in conjunction with the cloaking device on capital ships such as destroyers and cruisers; some have been used on escorts and monitors. The weapon is most often mounted forward, but it has been mounted in the aft position on occasion.

The Romulans have recently acquired the photon torpedo. These weapons are becoming more popular and can be found on many new Romulan designs. The torpedo is mounted in both fore and aft positions, though, in some cases, it has been mounted to fire port or starboard.



Cloaking Device

Contrary to popular belief, the Romulan cloaking device is not used on all ships. This device is effective but is dangerous to use. The effects of the device on personnel are not fully understood, and it has been responsible for incapacitating crewmembers while in operation. Until recently, the cloak was only used on destroyers and cruisers, but it is now known to be used on escorts, monitors, and scouts. The Romulans are well known for their hit and run tactics and this device and plasma weapon combination has been the demise of many an enemy.

Defense Shields

The Romulan concern for the safety of their crews has led them to develop efficient shields. Romulan ships use the most effective shields for the ship type and mission.



GORN NAVY

Not much is known about Gorn design philosophy.

Warp And Impulse Engines

It appears that the Gorn do not place their warp drives away from the main hull and that they use very little engine shielding. It has been speculated that the Gorn themselves are capable of withstanding large doses of radiation, and this allows them to use less engine shielding. The impulse engine is placed in the center-aft position and also uses little protective shielding.

Weapons

There seems to be no set design for weapons placement. Gorn ships use many weapons both individually and in banks. These are placed all around the ship. The torpedo is also used both in the fore and aft position.

Defense Shields

The Gorn, it seems, are less concerned about defensive shielding than even the Klingons. It will be noted that their shield technology lags far behind that of the other major races. From this, it is easy to understand why the Gorn like to get in close and slug it out.



ORIONS

Orion design philosophy is simple: anything goes. As spacefaring businessmen, the Orions will build to suit.

DESIGN REQUIREMENTS CHECKLIST

The following table contains a list of the most common equipment and sections of a starship. It gives information on the quantity of the various devices and areas, and it gives the amount of space that should be allocated for the equipment or section on a designer's deck plan. The quantity usually is given in relation to the number of crewmen, the displacement of the ship, or some other design consideration. The space required is given in standard squares 1.5 meters on a side or in SCU (1 standard square by 13-meter-deck tall).

DESIGN REQUIREMENTS CHECKLIST

Item	Quantity	Space Requirement
Airlock	Minimum of 1	3 squares minimum; size and shape varies widely.
Armory (combat ship only)	1 for Class I - III 2 for Class IV - VII 3 for Class VIII - XI 4 for Class XII - XIV 5 for Class XV - XVII	3 squares minimum
Batteries	In units of 5, as needed	22 squares per unit
Beam Weapon	Variable	
Bridge	1 for Class I - VI 2 for Class VII - XVII	1 square per 3000 mt, minimum of 3 squares Minimum of 1 square per manned command, helm, and navigation station Minimum of 2 squares for each other manned control station Minimum of 1 per manned crew station
Briefing Room	Variable	15 to 25 squares
Brig	1 on Class VI ships or larger	Variable; cells usually require 3 squares minimum.
Cabin	1 on combat vessels On passenger vessels, 1 per officer, 1 per passenger group of 1 to 4	18 to 30 squares
Cargo Hold	Minimum of 1	1 square per SCU required
Chapel	Variable	
Chart Room	On combat vessels, 1 On other vessels, variable	5 to 9 squares
Computer	Minimum of 1	1 square per 4000 mt
Decontamination Room	1 on Class VII ships or larger	4 squares
Engineering Control Room	1 on Class I - V 2 on Class VI - XVII	1 square per 10,000 mt Bridge controls, 2 to 4 squares
Environmental Suit Locker	1 per every 10 crew	1 or 2 squares per locker
Fire Control Center	1 per weapons system type Auxiliary centers for each system on many warships	3 squares
Food Processor	Minimum of 1 per vessel	1 square per 20 crewmembers; usually larger on larger vessels
Galley	Variable	4 to 12 squares
Gymnasium	1 on Class VII or larger	Variable
Head	Variable	1 square per every 2 crewmembers or passengers
Hydroponics Section	1 on Class VII or larger	Variable
Impulse Engine	1	Variable
Laboratories	Variable	Variable
Laundry	1 on Class VII or larger	Variable; each unit occupies 2 squares
Life Support Controls	Engineering set only on Class I - VII Bridge environmental station on larger ships	Already added to engineering control room size 2 to 4 squares on bridge
Life Support Equipment		15% to 20% of a vessel's space
Lounges	Variable	Variable
Material Fabricators	Variable	Minimum 1 square per every 10 crew
Media Center	Variable	Variable
Messhall	Minimum of 1 per 100 crewmembers	Variable
Missile Weapons	Variable	Variable
Recreation Center	At least 1 on all Class II or larger	1 square per every 5 crew
Sensors	1 set per vessel	Variable
Shield Generator	1	2 to 8 squares
Shuttle Bay	Maximum of 1	Minimum of 20 squares per shuttle Most Class VII or larger have extra bays to accomodate transient shuttles
Sickbay	Minimum of 1 on vessels of over 100 crew	Variable
Stateroom	Variable	Average of 9 squares per crew member
Storage Area	Variable	Variable
Tractor/Pressor Beam	1 per vessel	1 to 8 squares
Transporter	Minimum of 1 personnel transporter per every 50,000 tons Minimum of 1 emergency trans- porter on Class IX or larger	3 squares per pad 1 square per pad
Cargo transporter variable	Variable	
Turbolift	Variable	Variable
Wardroom	Minimum of 1 on vessels with over 6 Officers	Variable
Weapon Mounting Hardpoint	One per weapon	5% larger than weapon

Gamemastering Ship Construction

Before actual ship construction can begin, the various components for the starship must be located, purchased, and transported to the construction site. The plans for the ship must be obtained or commissioned, and the construction site and crew must be contracted.

DESIGNING THE SHIP

The first step in this process is creating or obtaining the plans. The plans should be up to the player characters, who may choose to use the Ship Construction Tables to create the specific statistics for the ship. The **Introduction To Starship Design** and the chapter on **Constructing A Starship** will be of value in this.

If they choose, the players may wish to use the **Design Requirements Checklist** to help create deck plans for their proposed vessel. The **Ship Construction Glossary** will help familiarize them with the various terms used in astronautics.

The cost of the design usually is a percentage of the ship's total cost, and will be covered below, in the section on **Determining Construction Costs**.

LOCATING EQUIPMENT

After the design has been decided upon, the equipment must be located. This section deals with that process. Two factors must be considered here: the legality of the items required and their availability.

LEGALITY

Legality Code

In the Ship Construction Tables, a column is given for Availability of the various pieces of equipment used in starship construction. This column gives listings such as *LRL/23*. The three letters at the front of this listing are the Legality Code that applies in Federation space.

In the Legality Code the first letter indicates the legality of sale in Federation space. The second letter indicates the legality of ownership in Federation space, and the third letter indicates the legality of use in Federation space. The letter *L* means that the sale, ownership, or use is legal. The letter *R* means that the sale, ownership, or use is restricted in some way, as discussed below. The letter *I* means that the sale, ownership, or use is illegal in UFP space.

The Legality Code of any particular item might have a substantial bearing on its availability and on its ultimate cost. This is discussed in the section on **Availability**. If the player characters are not operating in Federation space or will never go there, then the Legality Code probably will not apply to them except as it deals with the availability and cost of the equipment they intend to use in the construction of their starship. If, however, the player characters intend to operate *legally* in Federation space, they will want to be careful to design a ship that allows them to do this, either using only legal equipment or dealing with the proper authorities to allow them to purchase, own, and operate restricted equipment (or even, with the connivance of Star Fleet, illegal equipment).

Restricted Sale, Ownership, And Use

The following table gives some common restrictions that could be important in the sale of equipment with the Legality Code of *R*. Examples have been provided in many cases.

Restrictions On Sale		
Type Of Sale/Restriction	Example	
Sale to all individuals	Proof of eligibility	Alcohol
	Record of sale given to controlling authority	Pistol
Sale to certain individuals	Proof of eligibility	Syringes
	Record of sale given to controlling authority	Morphine
Sale to all corporate entities	Proof of incorporation	
	Record of sale given to controlling authority	
Sale to certain corporate entities	Proof of eligibility	Research matter
	Record of sale given to controlling authority	U-238
Sale to government agency	Proof of eligibility	Firearms
	Record of sale given to controlling agency	Plutonium
Restrictions On Use		
Permit necessary for unrestricted use.		
Permit necessary for regulated use.		
Use must be reported to controlling agency.		

AVAILABILITY

Availability Code

In the Ship Construction Tables, the column for Availability gives a listing such as *LRL/23*. The two digits at the end of the listing are the Availability Code.

Basically, the Availability Code is the percent chance that any given piece of equipment is available at the time that the player characters attempt to acquire it. This is assumed to be the base chance, which may be modified by the circumstances surrounding the sale, as discussed below, by the characters' Luck or Intelligence, or by their skill in *Administration*, *Security Procedures*, *Trade And Commerce*, or *Streetwise*.

Modifiers For Attributes And Skills

The higher a character's score in LUC or INT, the easier it will be for that character to find any given piece of equipment. Conversely, those characters with a low LUC or INT score will have more difficulty in the search.

Furthermore, the more skillful the characters are in dealing with bureaucracies, in negotiating trade deals, or in circumventing various security procedures, or in dealing on the street, the easier it will be for them to acquire anything they desire. Streetwise characters know *where* to look, traders know *how* to look, and administrators or security personnel know *where not* to look.

Modifiers For Location

Where the characters look is also very important. In Federation space, the legality of an item plays a part, but in other locations it does not. What matters most is which race manufactures the item and how far from the point of manufacture the point of sale is.

Thus, given that the Availability Codes are given for the average purchase (legality aside) in the Federation, items manufactured outside the Federation will be harder to find in the UFP interior than on the border, and even harder to find on the UFP frontier.

Items that are restricted or illegal in the UFP will be easiest to find in the Triangle area, where rumor has it that anything can be bought for a price, on worlds belonging to the Orion Colonies, and on the Klingon border. The accompanying table of Availability Code modifiers shows this. For each manufacturing race and location, three modifiers are given depending on the legality of purchase (not ownership or use); the first is for goods with the Legality Code of *L*, the second is for goods with the Legality Code of *R*, and the third is for goods with the Legality Code of *I*.

AVAILABILITY CODE MODIFIERS

For Attribute Scores

Attribute	Score	Modifier
LUC	80 or more	+10
	60 to 79	+5
	40 to 59	0
	less than 40	-5
INT	80 or more	+10
	60 to 79	+5
	40 to 59	0
	less than 40	-5

For Skill Ratings

Skill	Rating	Modifier
Administration	70 or more	+5
	less than 30	-5
Security Procedures	70 or more	+5
	less than 30	-5
Trade And Commerce	60 or more	+5
	80 or more	+10
Streetwise	60 to 79	+5
	less than 30	-5

For example, assume the purchasing character has a LUC score of 76 and an INT score of 50. He has a Skill Rating in Administration of 29, in Security Procedures of 72, in Streetwise of 59, and none in Trade And Commerce. He is trying to buy FSI deflector shield generators.

From the list of Federation equipment in the Ship Construction Tables, the Legality Code is LRL and the Availability Code is found to be 50. This means that the purchase is legal in Federation Space, the ownership of the shields is restricted by the UFP, but it is legal to operate the shields if one owns the generators. There is a base 50% chance to find the shields.

Because of the character's LUC score, there is a modifier of +5 to this, and because of his INT score there is no modifier. Because of his Skill Rating in Administration, there is a modifier of -5, and because of his Skill Rating in Security Procedures, there is another modifier of +5. His lack of skill in Trade And Commerce gives him no modifier, but his skill in Streetwise gives him a modifier of +5. The total modifier is +10.

The adjusted Availability Code is 60 (50 + 10 = 60). This is the target for the Availability Roll.

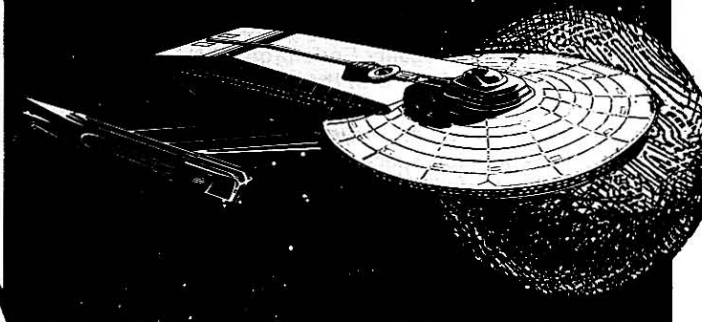
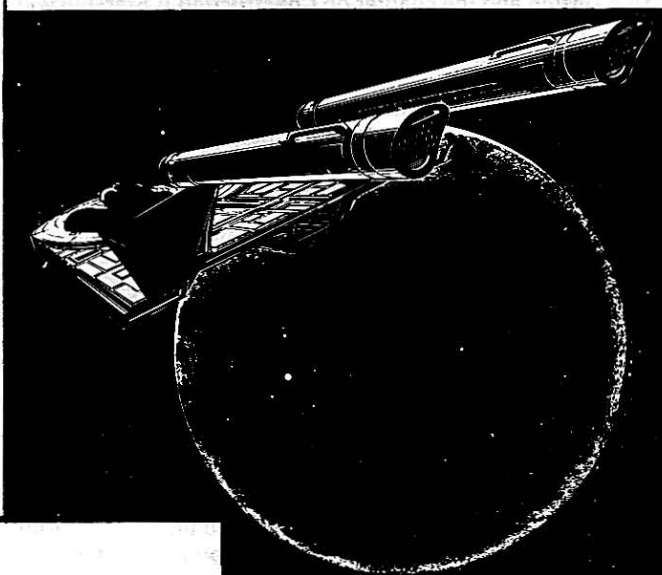
For Location Of Search

Location	Manufacturing Race			
	Federation	Klingon	Romulan	Orion
UFP Interior	0/-5/-15	-5/-15/-25	-5/-20/-30	0/-5/-15
UFP Frontier	0/0/-5	-15/-25/-40	-15/-30/-50	0/-10/-25
UFP On Klingon Border	+5/+5/0	+5/+5/0	+5/+5/+5	+10/+5/0
UFP On Romulan Border	+5/+5/0	-5/-10/-15	0/0/0	+10/+5/0
UFP On Gorn Border	0/0/-5	-5/-15/-25	-5/-20/-30	0/-10/-25
Triangle	+10/+5/0	+15/+15/+15	+10/+10/+10	+20/+20/+20
Orion Colonies	+10/+5/0	+10/+10/+10	+5/+5/+5	+20/+20/+20
Klingon Empire	0/0/0	+20/+20/+20	0/0/0	+10/+10/+10
Romulan Star Empire	-10/-10/-10	-5/-5/-5	+10/+10/+10	+5/+5/+5

Availability Rolls

Once all the modifiers have been determined, they are added to or subtracted from the Availability Code. Then, percentile dice are rolled. If the roll is less than or equal to the modified Availability Code, the item is available for purchase, and price negotiation may begin. If the roll is greater than the modified Availability Code, the player characters have not found what they were looking for, and will have to try again.

One Availability Roll may be made per game week per group of player characters. The players should choose the player character who has the best chance of finding the item in question, and use that character's modifiers for the attempt.



DETERMINING CONSTRUCTION COSTS

The cost of the ship is determined from the cost of the ship design (if it is an unusual one), the total cost for the components, and the cost of actually constructing the ship and installing the components. For true role playing excitement, the players may even haggle with the architect over the design fees, with the suppliers for each of the major pieces of equipment, and with the contractor over the final construction costs and the inevitable cost overruns.

For those characters interested in financing the above activities, the FASA publication **Trader Captains And Merchant Princes** gives many details about dealing with financial institutions.

ESTIMATED BASE COST

The base cost of the ship is determined from the total base cost of the components needed totalled with the cost for the superstructure strength of the vessel and the hull cost.

Estimated Base Component Cost

To estimate the base cost of the components, add up the base costs found in the Cost column of the Ship Construction Tables. Cost should be calculated for the ship's computer, its warp engine(s), its impulse engine, its shield generators, and its weapons (if any). The actual cost may be greater or less, depending on the purchase negotiations.

For example, the Larson component cost is 699MCr. The cost of each component, determined from the Ship Construction Tables, is shown below.

Number	Component	Cost (MCr)
1	M-1 Computer	48
1	FWC-2 Warp Engine	264
1	FIB-1 Impulse Engine	11
1	FSC Shield Generator	4
6	FH-4 Phaser Weapons	336
2	FP-2 Photon Torpedoes	36

Estimated Hull Cost

The estimated cost for the hull of the ship covers the estimated cost for materials needed for constructing the hull, the pylons, the nacelles, and other parts of the superstructure. It is the estimated cost for actual construction, including the cost of labor and facilities. It also must include, the cost of all life-support, electrical, hydraulic, and electronic systems needed to make the components function in the ship.

This cost is dependent, to a large degree, on the size (mass) of the vessel, and on the superstructure strength of the vessel. The table below gives the estimated cost for constructing the hull itself and the cost for each superstructure point the ship will have. This cost may be greater, depending on whether or not there are cost over-runs.

To use the table, find the ship class in the left-hand column. In the center column, cross-reference the cost of the hull itself. In the right-hand column, find the cost of each point of superstructure. Multiply the number of superstructure points by this cost and add it to the hull cost. This will give the total base cost of the hull.

SHIP HULL COSTS

Ship Class	Hull Cost (MCr)	Superstructure Cost (MCr)
I	.5	.5
II	1	.5
III	2	.5
IV	3	.5
V	5	.6
VI	7	.6
VII	9	.6
VIII	11	.7
IX	14	.7
X	17	.7
XI	20	.8
XII	24	.8
XIII	28	.8
XIV	32	.9
XV	36	1.0

For example, the Larson Class VII Destroyer has a Base Hull Cost of 15MCr. The hull cost from the table is 9MCr, and each superstructure point costs .6MCr. It has 10 superstructure points, and so the cost for the superstructure is 6MCr (.6MCr/point x 10 points = 6MCr).

Total Base Cost

Add the Base Component Cost and the Base Hull Cost. This will give the Total Base Cost of the ship.

For example, the Larson Class VII Destroyer has a Base Component Cost of 699MCr and a Base Hull Cost of 15MCr. The Total Base Cost of the ship is 714MCr. Such a ship will most likely be far beyond the reach of any group of player characters.

DESIGN COST

If the design is a unique one, a designer's fee is calculated as a percentage of the theoretical cost of the ship. Once the particulars about the ship class and components (engines, computer, shield generators, weapons, and hull) have been determined, the total base cost of the ship is calculated. The design fee will be equal to $1D10 + 5\%$, rounded up, of this base cost.

As an example, let us assume that the players have presented a design that, when finished, will total 40MCr. As the ship is not a standard design, the referee rolls one die. If the roll is 4, the designer's fee will be 9% (roll of 4 + 5 = 9%). This adds a designer's fee of 3.6 MCr to the total cost (40MCr x 0.09 = 3.6MCr). This brings the total cost to 43.6MCr.

PURCHASING EQUIPMENT

Once a desired piece of starship equipment has been located, its price must be determined. The Ship Construction Tables have a column that gives the open market price for any piece of equipment. This price must be modified if the equipment is purchased on the black market to reflect the illegality of the purchase. It also should be modified to take into account the attributes and skills of the negotiating player character. These modifiers are discussed in the paragraphs below.

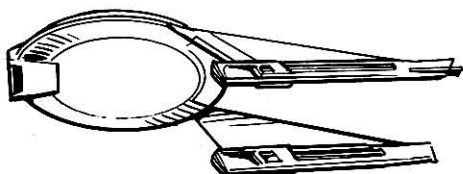
Black Market Price

To determine the final cost of the component in question, simply find the modified Availability Code in the following table, and multiply the base cost of the equipment by the multiplier shown.

BLACK MARKET PRICE MULTIPLIERS	
Adjust. Avail. Code	Multiplier
01 to 10	10
11 to 20	8
21 to 30	6
31 to 40	5
41 to 50	4
51 to 60	3
61 to 70	2
71 to 80	1.5
81 to 90	1.3
91 to 99	1.1

Purchase Negotiations

If the player character has skill in *Trade And Commerce* or *Value Estimation*, they may be used to lower the final price of the item. The character may make a Skill Roll against his or her rating in each of these skills. For each successful roll, he or she may reduce the cost of the component by 1 percent. Thus, if both rolls were successful, the cost of the component will be 2% less than calculated.



In the example above, our character found his deflector shields within the Triangle area. He now makes his deal with the supplier. The shields would normally cost 3MCr. Checking the table above, we find that an availability of 89 gives us a price multiplier of x2. Thus the shields cost him 6MCr. He has no Trading skill, but does have some skill in Value Estimation (28). He rolls percentile dice against that rating, and succeeds with a roll of 02. 1% of 6MCr is .06MCr, so the final price of those shields is 5.94 MCr.

DO-IT-YOURSELF SHIP CONSTRUCTION

If the characters wish to use a piece of equipment that has an availability code of *None*, or if they are unwilling to wait long enough for a hard-to-find item to surface, or if they are unable to make a necessary or really desirable purchase for some reason, a different set of rules apply. Instead of buying those components outright, someone may buy or steal the plans and the player characters could have the components built.

The cost for finding someone to steal the plans should be quite high, if the task is even possible at all. The exact cost is up to the gamemaster. One possible guideline is to apply a cost multiplier of 3D10 + 40 to the base cost of the component; this will give the amount to pay the thief and the craftsmen.

Even better would be, if the players *really* want that item bad enough, to have *their* characters break in and steal the plans. Not only will you increase the danger to the characters for such an insane action, but will provide an interesting scenario in its own right.

ACTUAL COST

When all the parts of the starship have been assembled, through legal, illegal, or dubious means, the final assembly cost of the ship is determined as above, using the ship's tonnage as a price modifier. As we can see, buying or building a ship with the aid of the black market will allow the characters much more freedom over the end product, but will cost many times more than if the ship were purchased through conventional channels.

Actual Ship Cost

When deriving the cost of building a starship, many cost factors apply. First, total the cost of all pieces of equipment, including weapons, shield generators, engines, and computer. Also calculate the cost of any additional superstructure points above those given by the total size of the vessel. This total is then multiplied by the Tonnage Modifier, selected from the table below.

The Tonnage Modifier takes into account the ship's fittings and furnishings – the things that make it spartan or luxurious, barren or comfortable. It also takes into account the creeping inflation that is inevitable in dealing with the increasing number of items that must be purchased for larger ships.

To use the table, find the ship class in the left-hand column. Then, choose a column to the right depending on the amount of luxury desired. Cross-indexing will give the Tonnage Modifier. Multiply the Estimated Cost of the ship by the Tonnage Modifier to give the Actual Cost.

Tonnage Modifier To Construction Costs

Class Range	Spartan	Modifier Average	Good-Quality	Luxurious
I – II	1.0005	1.001	1.003	1.005
III	1.001	1.002	1.005	1.01
IV – V	1.002	1.003	1.008	1.02
VI	1.003	1.004	1.01	1.03
VII – VIII	1.004	1.005	1.02	1.04
IX and up	1.005	1.008	1.025	1.05

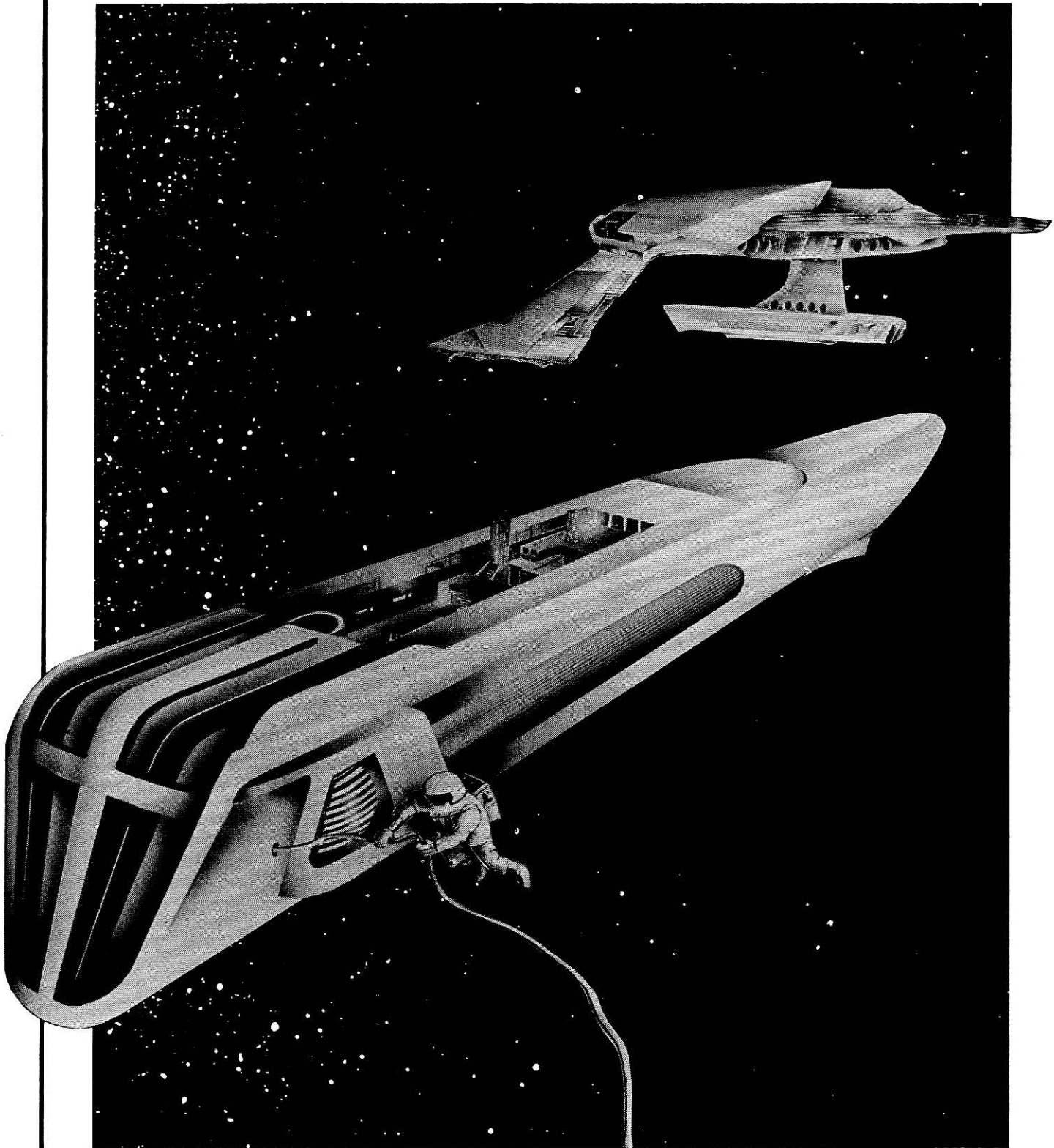
For example, the players decide to build a 40MCr, Class I vessel, which costs 43.6MCr when the design costs are added in. They have some money to burn, and they decide to live in the lap of luxury. The estimated cost of the vessel (43.6MCr) will be multiplied by the Tonnage Modifier of 1.005 determined from the table. This makes the final cost actually 43.8MCr. Amazing the ways a gamemaster can suck up the player characters' money, isn't it!

Cost Overruns

If the gamemaster so desires, cost overruns may be calculated as well. These may be calculated in any way the gamemaster chooses, but 1D10% of the total cost of the ship is not unreasonable. If this method is chosen, the gamemaster should roll one die to determine the percentage the overrun will cost.

For example, the gamemaster determines that the players will have cost overruns on a ship that would otherwise cost 43.8 MCr. He rolls one die, and gets an 8. This means that the overruns will cost an extra 8%, or 3.5MCr (roll of 8% x total cost of 43.8 MCr = 3.5MCr). Thus, although the ship's estimated price tag was 40MCr, the actual cost to the player characters is 47.3MCr!

Ship Construction Tables





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CONTROL COMPUTER SYSTEM TYPES

Control Computer Type	System Mass (mt)	Appropriate Ship Classes	SS Requirement	Maximum WDF Allowed	Availability	Cost (Mcr)
L-12	50	I-III	0.1	2	LLL/90	4
L-13	450	I-IX	0.3	5	LLL/88	11
L-14	1050	II-IX	0.5	10	LLL/85	17
M-1	2900	IV-X	0.9	30	LLL/82	48
M-2	3800	VII-XII	1.1	40	LLL/74	60
M-3	4700	VIII-XIII	1.5	50	LLL/60	71
M-4	5750	IX-XIV	2.0	70	LLL/42	83
M-6	6000	X-XV	2.0	90	LLL/20	150
M-7	11500	XIII	3.0	150	LLL/None	—

CONTROL COMPUTER SUITABILITY

Control Computer Type	Single Warp Engine Type	Tandem Warp Engine Type	Impulse Engine Type		Deflector Shield Generator Type		Maximum WDF Allowed
L-12	FWA FMWA	None	FIA FIB-1,2 FIC-1,2	FID-1,2 FIE-1 FMIA	FSA FSC		2
L-13	FWA FWE FWH FMWA	FMWA	FIA FIB FIE-1,2	FIC FID FMIA	FSA FSC FSE FSG		5
L-14	FWA FWB FWC-1 FWD-1 FWE FWH FMWA	FWA FWH FMWA	FIA FIB FIC FMIA	FID FIE-1,2 FIF-1 FMIA	FSA FSB FSC FSD FSE FSM	FSE FSG FSJ FSM	10
M-1	All Warp	FWA FWB FWE-1 FWH	FIA FIB FIC	FID FIE FIF	FSA FSB FSC FSD FSE FSM	FSF FSG FSH FSJ FSN	30
M-2	All Warp	FWA FWB FWD-1 FWE FWH	FIA FIB FIC FID	FIE FIF FIG-1	FSA FSB FSC FSD FSE FSN	FSG FSH FSJ FSK FSM	40
M-3	All Warp	FWA FWB FWC-1 FWD FWE FWH	FIA FIB FIC FID	FIE FIF FIG-1,2	FSA FSB FSC FSD FSE FSF FSG FSN	FSH FSI FSJ FSK FSL FSM	50
M-4	All Warp	FWA FWB FWC FWD FWE FWF FWG-2 FWH	All	All	All But FSP		70
M-6	All Warp	All Warp	All	All	All		90
M-7	All Warp FTWA	All Warp FTWA	All	All	All		120

WARP ENGINE TYPES

Warp Engine Type	Total Mass (mt)	Power Units Available	Single Engine Use Control Computer Requirement	Stress Column (Eng/SS)	SS Requirement	Availability	Cost (MCr)
FWA-1	2,400	6	L-12	F/G	0.2	RRR/81	2.4
FWA-2	2,400	8	L-12	H/L	0.2	RRR/80	3.0
FWB-1	18,000	9	L-14	L/M	1.4	RRR/77	36
FWB-2	18,000	12	L-14	L/N	1.4	RRR/74	42
FWC-1	60,000	14	L-14	N/L	4.8	RRR/72	240
FWC-2	60,000	20	M-1	M/K	4.8	RRR/68	264
FWD-1	50,000	10	L-14	K/F	4.0	RRR/65	200
FWD-2	50,000	16	M-1	L/F	4.0	RRR/63	227
FWE-1	40,000	8	L-13	F/I	3.2	RRR/57	123
FWE-2	40,000	12	L-13	F/J	3.2	RRR/57	135
FWF-1	62,000	18	M-1	F/K	5.0	RRR/49	248
FWG-1	50,000	20	M-1	C/D	4.0	RRR/38	303.5

Warp Engine Type	Total Mass (mt)	Power Units Available	Tandem Engine Use Control Computer Requirement	Stress Column (Eng/SS)	SS Requirement	Availability	Cost (MCr)
FWA-1	4,800	6 ea	L-14	G/K	0.4	RRR/81	5.3
FWA-2	4,800	8 ea	L-14	J/M	0.4	RRR/80	6.6
FWB-1	36,000	9 ea	M-1	M/O	2.8	RRR/77	79
FWB-2	36,000	14 ea	M-1	M/O	2.8	RRR/74	93
FWC-1	120,000	16 ea	M-3	O/M	9.6	RRR/72	528
FWC-2	120,000	20 ea	M-4	N/M	9.6	RRR/68	581
FWD-1	100,000	12 ea	M-2	L/G	8.0	RRR/65	440
FWD-2	100,000	18 ea	M-3	M/G	8.0	RRR/63	500
FWE-1	80,000	8 ea	M-1	G/K	6.4	RRR/57	270
FWE-2	80,000	13 ea	M-2	G/K	6.4	RRR/57	300
FWF-1	124,000	20 ea	M-4	G/L	10.0	RRR/49	545
FWG-1	100,000	26 ea	M-6	D/F	8.0	RRR/38	668
FWH-1	8,000	10 ea	L-14	O/R	0.6	RRR/84	9
FMWA-1	600	2 ea	L-13	A/A	0.1	RRR/88	1.2
FTWA-1	156,000	38 ea	M-7	D/F	12.4	RRR/None	—



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MOVEMENT POINT RATIO TABLE: SINGLE WARP ENGINE

Ship Class	Movement Point Ratios										
	1/4	1/3	1/2	1/1	2/1	3/1	4/1	5/1	6/1	7/1	8/1
I	FWA-1 34 8/10	FWA-1 26 7/9	FWA-1 17 7/9 FWA-2 23 7/9	FWA-1 8.5 7/9 FWA-2 11.5 7/9 FMWA 3 2/3	FWH-1 7 5/6 FMWA 1.5 2/2						
II		FWA-1 26 7/9	FWA-1 17 7/9	FWA-1 8.5 7/9 FWA-2 11.5 7/9	FWA-1 4 6/8 FWA-2 6 7/9	FWH-1 7 5/6					
III				FWB-1 13 6/7 FWB-2 17 6/7	FWA-2 6 7/9 FWB-2 8.5 5/6	FWH-1 7 5/6					
IV				FWB-1 13 6/7 FWB-2 17 6/7	FWB-2 8.5 5/6	FWH-1 5 4/5					
V				FWD-1 14 7/9 FWD-2 23 7/9	FWB-1 6.5 5/6 FWB-2 8.5 5/6	FWE-1 6 7/9	FWE-2 4 7/9		FWG-1 6 8/10		
VI					FWC-1 10 8/10 FWC-2 14 7/9 FWD-1 7 7/9	FWD-2 11.5 6/8 FWE-1 6 7/9	FWC-1 7 8/10 FWD-1 5 6/8	FWE-2 6 7/9 FWD-2 7.5 6/8	FWF-1 6.5 6/8	FWG-1 6 8/10	
VII					FWC-2 14 7/9	FWE-1 6 7/9	FWC-1 7 8/10 FWD-1 5 6/8	FWD-2 7.5 6/8 FWE-2 6 7/9	FWF-1 5 7/9 FWF-1 6.5 6/8	FWG-1 6 8/10	
VIII					FWC-2 9.5 6/8		FWC-1 5 7/9 FWD-1 4 6/8	FWD-2 7.5 6/8 FWE-1 4 7/9	FWG-1 6 8/10 FWF-1 6.5 6/8		
IX							FWE-1 4 7/9	FWC-1 5 7/9 FWD-2 6 5/7	FWE-2 4 6/8 FWF-1 6.5 5/7	FWF-1 5 5/7	FWG-1 5 7/9 FTWA 8.5 13/15
X								FWE-2 4 6/8		FWF-1 5 5/7	FWG-1 5 7/9 FTWA 8.5 13/15
XI								FWE-2 4 6/8		FWG-2 5 4/6	
XII										FWG-2 5 4/6	
XIII										FWG-2 5 4/6	
XIV											FWG-2 4 4/6
XV											FWG-2 4 4/6
XVI											FWG-2 4 4/6
XVII											FWG-2 3.5 3/5
XVIII											FWG-2 3.5 3/5



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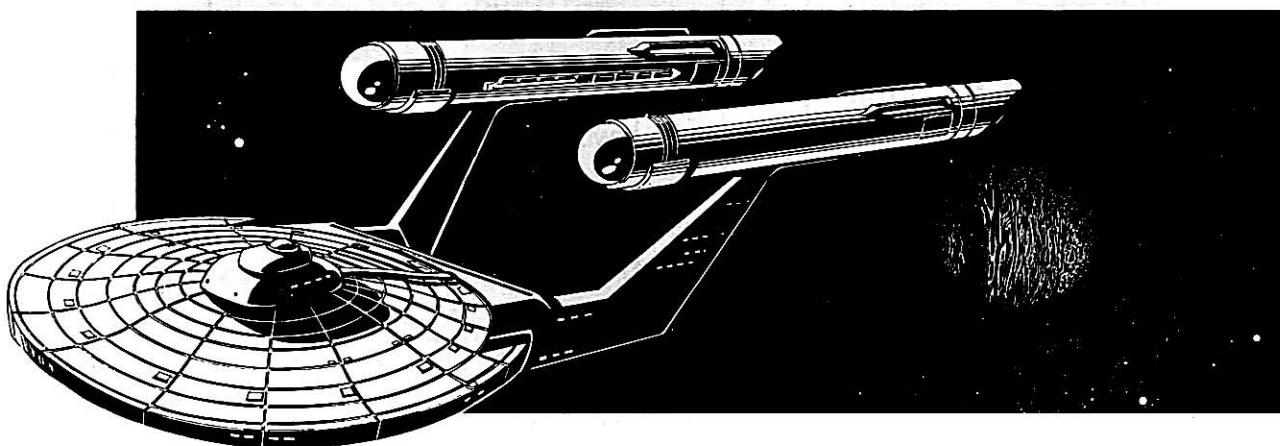


MOVEMENT POINT RATIO TABLE: TANDEM WARP ENGINES

MOVEMENT POINT RATIO TABLE: TANDEM WARP ENGINES											
Ship Class	Movement Point Ratios										
	1/1	3/2	2/1	3/1		4/1		5/1		6/1	7/1
I	FMWA 6 2/3		FMWA 3 2/2								
II	FWA-1 17 7/9 FWA-2 23 7/9	FWA-1 11.5 7/9	FWA-1 8.5 6/8	FWA-1 6 6/8 FWH-1 9 5/6							
III			FWA-2 11.5 6/8	FWH-1 9 5/6		FWA-1 4 5/7					
IV			FWA-2 11.5 6/8 FWB-2 20 8/9	FWH-1 9 5/6		FWH-1 7 4/5					
V			FWB-1 13 7/8	FWB-1 8.5 6/7	FWB-2 13 7/8	FWH-1 7 4/5					
VI				FWB-1 8.5 6/7		FWH-1 7 4/5	FWB-2 10 6/7				
VII				FWE-1 7.5 7/9	FWE-2 12 7/9						
VIII			FWD-2 26 6/8	FWE-2 12 7/9 FWE-1 7.5 7/9	FWD-1 17 7/9						
IX			FWC-1 23 8/10 FWD-2 26 6/8	FWC-2 19 7/9 FWD-1 11.5 7/9	FWE-1 7.5 7/9 FWE-2 12 7/9	FWE-1 6 6/8 FWE-2 9 6/8	FWF-1 14 6/8				
X				FWC-1 15 7/9 FWD-2 17 5/7		FWC-2 9 6/8 FWD-1 8.5 6/8 FWE-1 6 6/8	FWE-2 9 6/8 FWF-1 14 6/8 FWG-1 18.5 8/10				FTWA 18 12/14
XI				FWC-1 15 7/9 FWD-2 17 5/7		FWC-1 11.5 6/8 FWD-2 13 4/6 FWE-2 9 6/8	FWF-1 14 6/8 FWG-1 18.5 8/10				FTWA 18 12/14
XII						FWD-2 13 4/6 FWE-2 9 6/8	FWF-1 14 6/8 FWG-1 18.5 8/10 FWG-1 15 7/9	FWF-1 11.5 5/7			FTWA 18 12/14
XIII						FWD-2 13 4/6	FWF-1 11.5 5/7	FWG-1 15 7/9			FTWA 18 12/14
XIV							FWF-1 11.5 5/7	FWG-1 15 7/9			FTWA 18 12/14
XV										FWG-1 12 6/8	FTWA 18 12/14



Engine Type	IMPULSE ENGINE TYPES						Cost (MCr)
	Total Mass (mt)	Power Units Available	Control Computer Required	Ship Classes Powered	SS Requirement	Availability	
FIA-1	150	1	L-12	I	.1	RRR/88	1
FIA-2	150	2	L-12	I-II	.1	RRR/86	1
FIA-3	150	3	L-12	I-III	.1	RRR/83	2
FIB-1	200	2	L-12	VII	.1	RRR/83	1
FIB-2	200	4	L-12	IV-VIII	.1	RRR/82	2
FIB-3	200	6	L-13	V-IX	.1	RRR/80	3
FIC-1	255	1	L-12	III-VI	.1	RRR/76	1
FIC-2	255	3	L-12	V-IX	.1	RRR/74	2
FIC-3	255	6	L-13	VII-XI	.1	RRR/70	3
FID-1	315	2	L-12	IV-VII	.1	RRR/70	2
FID-2	315	4	L-12	VII-XII	.1	RRR/65	3
FID-3	315	8	L-13	XII-XX	.1	RRR/63	4
FIE-1	350	4	L-12	VI-VIII	.1	RRR/64	3
FIE-2	350	8	L-13	VII-XII	.1	RRR/60	4
FIE-3	350	16	M-1	XI-XX	.1	RRR/57	5
FIE-1	438	12	L-14	VIII-XI	.1	RRR/55	4
FIF-2	438	16	M-1	IX-XIII	.1	RRR/50	5
FIF-3	438	20	M-1	XI-XX	.1	RRR/46	7
FIG-1	1060	24	M-2	X-XIII	.1	RRR/47	10
FIG-2	1060	32	M-3	XII-XV	.1	RRR/40	18
FIG-3	1060	40	M-4	XIV-XV	.1	RRR/32	34
FMIA	10	1	L-12	I	.1	RRR/92	1



MOVEMENT POINT RATIO TABLE: IMPULSE ENGINES



Ship Class	Movement Point Ratios															
	1/4	1/3	1/2	1/1	3/2	2/1	3/1	4/1	5/1	6/1	7/1	8/1				
I	FIA-1 6	FIA-1 4	FIA-1 3 FIA-2 6	FIA-1 1.5 FIA-2 3 FIA-3 4	FIA-1 1 FIA-2 2	FIA-3 2										
II			FIA-2 6	FIA-2 3 FIA-3 4	FIA-2 2	FIA-3 2										
III				FIA-3 4 FIC-1 1.5		FIA-3 2 FIB-2 3	FIC-1 1	FIB-1 1 FIB-2 2	FIB-3 3	FIB-1 1 FIB-2 1.5	FIB-3 2 FIC-1 1					
IV				FIC-1 1.5		FIB-2 3 FIC-1 1	FID-1 1.5 FIB-2 2	FIB-1 1 FIB-2 1.5	FIB-3 3 FIC-1 1	FIB-1 1 FIB-2 1.5	FID-1 2	FIB-3 1				
V				FIC-1 1.5		FIB-2 3 FIB-3 4 FIC-1 1	FIC-2 2 FID-1 1.5 FIC-2 1.5	FIB-2 2 FIB-3 3 FIB-3 2	FID-1 1	FIB-1 1 FIB-2 1.5	FIC-1 1 FIC-2 1	FIC-2 1 FID-1 1				
VI				FIC-1 1.5		FIB-2 3 FIC-1 1 FIC-2 2	FID-1 2 FIB-3 1.5 FIC-1 3	FIB-2 2 FIB-3 1.5 FIC-2 1.5	FID-1 2	FIB-2 1.5 FIB-3 2 FIC-2 1	FID-1 1 FIC-1 1.5	FIC-2 1 FID-1 1 FIE-1 1				
VII				FIB-2 6		FIB-1 1.5 FIB-2 3 FIB-3 4 FIC-2 2	FIC-3 4 FID-1 1.5 FIC-3 3 FIE-1 3	FIB-2 2 FIC-2 1.5 FIC-3 3 FIE-1 2		FIB-2 1.5 FIC-2 1 FIC-3 2 FID-1 1	FIE-1 1.5	FIC-2 1 FIC-3 2 FID-1 1 FIE-1 1	FIE-2 2	FIE-2 2		
VIII						FIB-2 3 FIB-3 4 FIC-2 2 FIC-3 4	FIE-1 1.5 FIE-2 3 FIF-1 8.5	FIB-3 3 FIC-2 1.5 FIC-3 3 FID-1 1	FIE-1 2 FIE-2 1 FIF-1 6 FIF-2 7.5	FIB-3 2 FIC-2 1 FIC-3 2 FID-2 1.5	FIE-1 1.5 FIE-2 3 FIF-1 4 FIE-1 1	FIC-2 1 FIC-3 2 FID-2 1 FIE-1 1	FIE-2 1 FIF-1 3.5 FIF-2 4.5	FID-2 1 FIE-2 2 FIF-1 3		
IX						FIC-2 2 FIC-3 4 FIE-2 6 FIF-1 8.5	FIB-3 3 FIC-2 1.5 FIC-3 3 FID-2 2	FIE-2 4 FIF-1 6 FIF-2 7.5	FIB-3 2 FIC-2 1 FIC-3 2 FID-2 1.5	FIE-2 3 FIF-1 4 FIF-2 6	FIC-2 1 FIC-3 2 FID-2 1 FIE-2 2	FIF-1 3.5 FIF-2 4.5	FID-2 1 FIE-2 2 FIF-1 3 FIF-2 4			
X						FIC-3 4 FIE-2 6 FIF-1 8.5	FIG-1 17 FIC-3 3 FID-2 2 FIE-2 4	FIF-1 6 FIF-2 7.5 FIF-3 13.5	FIC-3 2 FID-2 1.5 FIE-2 3	FIF-1 4 FIF-2 6 FIF-3 8.5	FIC-2 2 FID-2 1 FIE-2 2	FIF-1 3.5 FIF-2 4.5 FIF-3 7	FID-2 1 FIE-2 2 FIF-1 3	FIF-2 4 FIF-3 6		
XI						FIC-3 4 FIE-2 6 FIF-1 8.5 FIG-1 17	FIC-3 3 FID-2 2 FIE-2 4 FIF-3 7.5	FIF-1 6 FIF-2 7.5 FIF-3 13.5	FIC-3 2 FID-2 1.5 FIE-2 3 FIF-3 6	FIF-1 4 FIF-2 6 FIF-3 8.5	FIC-2 1 FID-2 1 FIE-2 2 FIF-3 4.5	FIF-1 3.5 FIF-2 4.5 FIF-3 7	FID-2 1 FIE-2 2 FIF-1 3	FIF-2 4 FIF-3 6		
XII						FIE-2 6 FIG-1 17	FID-2 2 FIF-1 4 FIF-2 4 FIF-3 7.5	FIF-2 7.5 FIF-3 13.5	FID-2 1.5 FIF-1 3 FIF-2 6 FIF-3 8.5	FIF-2 6 FIF-3 13.5	FID-2 1 FIF-1 4 FIF-2 2 FIF-3 4.5	FIF-2 4.5 FIF-3 7 FIF-4 9	FID-3 2 FIF-1 4 FIF-2 4 FIF-3 7.5	FIF-2 4 FIF-3 6		
XIII						FIG-1 17	FID-3 4 FIF-3 7.5 FIF-4 15	FIG-1 13.5 FIG-2 15	FID-3 3 FIF-3 6 FIF-4 13.5	FIF-3 7 FIF-4 8.5 FIF-5 13.5	FID-3 2 FIF-1 4.5 FIF-2 2 FIF-3 4.5	FIF-3 6 FIF-4 9 FIF-5 13.5	FID-3 2 FIF-1 4 FIF-2 4 FIF-3 7.5	FIG-1 6 FIG-2 7.5		
XIV							FID-3 4 FIF-3 7.5 FIG-2 15		FID-3 3 FIF-3 6 FIF-4 13.5	FIF-3 7 FIF-4 8.5 FIF-5 13.5	FID-3 2 FIF-1 4.5 FIF-2 2 FIF-3 4.5	FIF-3 6 FIF-4 9 FIF-5 13.5	FID-3 2 FIF-1 4 FIF-2 4 FIF-3 7.5	FIG-3 9.5		
XV							FID-3 4 FIF-3 7.5	FIG-2 15	FID-3 3 FIF-3 6	FIF-3 7 FIF-4 13.5	FID-3 2 FIF-1 4.5	FIF-3 6 FIF-4 9	FID-3 2 FIF-1 4 FIF-2 4 FIF-3 7.5	FIG-2 7.5 FIG-3 9.5		
XVI													FIF-3 5		FID-3 2 FIF-3 4 FIF-4 4	
XVIII															FID-3 2 FIF-3 4 FIF-4 4	
XIX-XX															FID-3 1 FIF-3 3	FIF-3 3.5



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SHIELD GENERATOR TYPES

Shield Generator Type	Total Mass (mt)	Control Computer Requirement	Shield Efficiency Rating	SS Requirement	Availability	Cost (MCr)
FSA	110	L-12	1	.2	LRL/92	3
FSB	140	L-14	2	.9	LRL/72	6
FSC	160	L-12	1	.2	LRL/90	4
FSD	175	L-14	2	1.0	LRL/71	8
FSE	230	L-13	1	.5	LRL/86	5
FSF	235	M-1	2	1.8	LRL/69	10
FSG	265	L-13	1	.6	LRL/84	6
FSH	305	M-1	2	1.9	LRL/64	12
FSI	510	M-3	3	1.0	LRL/50	18
FSJ	300	L-14	1	1.1	LRL/79	7
FSK	380	M-2	2	2.8	LRL/62	14
FSL	575	M-3	3	1.8	LRL/48	21
FSM	330	L-14	1	1.0	LRL/77	8
FSN	415	M-2	2	2.9	LRL/60	16
FSO	615	M-4	3	3.1	LRL/46	24
FSP	845	M-6	4	2.1	LRL/43	32

MAXIMUM SHIELD POWER Shield Types/Shield Point Ratios

Ship Class	1/1						1/2						1/3			1/4
	FSA	FSC	FSE	FSG	FSJ	FSM	FSB	FSD	FSF	FSH	FSK	FSN	FSI	FSL	FSO	FSP
I	12 17	14 20	14 20	15 21	16 23	16 23	14 10	15 10.5	15 10.5	16 11.5	16 11.5	16 11.5	16 7.5	16 7.5	16 7.5	16 5.5
II	11 16	12 17	13 19	14 20	15 21	16 23	11 8	12 8.5	14 10	16 11.5	16 11.5	16 11.5	16 7.5	16 7.5	16 7.5	16 5.5
III	10 14	11 16	12 17	13 19	14 20	16 23	9 6.5	10 7	14 10	15 10.5	16 11.5	16 11.5	16 7.5	16 7.5	16 7.5	16 5.5
IV	9 13	10 14	11 16	12 17	14 20	16 23	8 5.5	9 6.5	13 9.5	15 10.5	16 11.5	16 11.5	16 7.5	16 7.5	16 7.5	16 5.5
V	8 11	9 13	11 16	12 17	13 19	15 21	6 4.5	8 5.5	12 8.5	14 10	16 11.5	16 11.5	16 7.5	16 7.5	16 7.5	16 5.5
VI	7 10	9 13	10 14	11 16	13 19	14 20	6 4.5	7 5	10 7	13 9.5	16 11.5	16 11.5	15 7	16 7.5	16 7.5	16 5.5
VII	6 9	8 11	9 13	10 14	12 17	13 19	5 3.5	7 5	10 7	13 9.5	16 11.5	16 11.5	14 7	16 7.5	16 7.5	16 5.5
VIII	5 7	7 10	9 13	10 14	11 16	12 17	5 3.5	6 4.5	9 6.5	12 8.5	16 11.5	16 11.5	13 6.5	16 7.5	16 7.5	16 5.5
IX	3 5	6 9	8 11	10 14	11 16	12 17	4 3	6 4.5	8 5.5	12 8.5	15 10.5	16 11.5	12 5.5	15 7	16 7.5	16 5.5
X	1 1	5 7	8 11	9 13	10 14	11 16	4 3	5 3.5	8 5.5	11 8	14 10	16 11.5	11 5	14 7	16 7.5	16 5.5
XI	— —	4 6	7 10	9 13	10 14	11 16	3 2.5	5 3.5	7 5	10 7	14 10	16 11.5	11 5	14 7	16 7.5	16 5.5
XII	— —	3 5	6 9	8 11	9 13	10 14	2 1.5	4 3	6 4.5	9 6.5	13 9.5	16 11.5	10 4.5	13 6.5	15 7	16 5.5
XIII	— —	1 1	5 7	7 10	8 11	9 13	1 .5	3 2.5	4 3	8 5.5	12 8.5	15 10.5	10 4.5	12 5.5	14 7	16 5.5
XIV	— —	— —	3 5	5 7	6 9	8 11	— —	1 .5	2 1.5	6 4.5	11 8	14 10	9 4	11 5	12 6.5	15 5
XV	— —	— —	1 1	2 3	3 5	5 7	— —	— —	— —	3 2.5	7 5	12 8.5	6 3	7 3.5	8 4.5	14 5



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PHASER BEAM WEAPON TYPES

Phaser Weapon Type	Total Mass (mt)	Maximum Beam Power	Damage Modifiers			Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement (single/bank)	Avail.	Cost (Mcr)
			+3	+2	+1						
FH-1	250	2	-	-	-	8	F	.5	.5/.8	RRR/82	38
FH-2	375	3	-	-	(1-10)	10	H	1.3	.6/.9	RRR/78	56
FH-3	625	5	(1-10)	(11-17)	(18-20)	20	W	5.8	.8/1.2	RRI/47	94
FH-4	375	3	-	(1-8)	(9-14)	14	Q	2.6	.7/1.1	RRI/63	56
FH-5	500	4	-	(1-8)	(9-16)	16	R	3.1	.8/1.2	RRI/60	75
FH-6	300	3	-	(1-7)	(8-13)	13	N	2.3	1.2/1.8	RRI/65	45
FH-7	400	4	-	(1-8)	(9-14)	14	Q	3.2	1.4/2.1	RRI/59	60
FH-8	500	5	-	(1-10)	(11-18)	18	T	4.3	1.6/2.4	RRI/52	75
FH-9	600	6	-	(1-12)	(13-22)	22	X	6.0	1.7/2.5	RRI/50	90
FH-10	420	7	(1-10)	(11-17)	(18-20)	20	W	9.7	2.0/3.0	RRI/45	63
FH-11	600	10	(1-10)	(11-17)	(18-24)	24	Y	10.7	2.2/3.2	RRI/38	90
FH-12	360	6	-	(1-9)	(10-16)	16	R	4.9	1.0/1.5	RRI/58	58
FH-13	620	8	(1-5)	(6-12)	(13-18)	18	T	6.5	1.8/2.7	RRI/50	65

LASER BEAM WEAPON TYPES

Laser Weapon Type	Total Mass (mt)	Maximum Beam Power	Damage Modifiers		Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement	Availability	Cost (Mcr)
			+2	+1						
FL-1	500	2	-	-	6	D	.4	.8	LLL/98	9
FL-2	610	2	-	-	8	F	.6	.9	LLL/98	12
FL-3	680	2	-	(1-4)	10	G	.7	1.2	LLL/96	14
FL-4	740	3	-	(1-4)	10	G	1.0	1.5	LLL/94	20
FL-5	820	2	(1-4)	(5-7)	10	H	1.1	2.0	LLL/92	22
FL-6	930	3	(1-4)	(5-7)	10	H	1.4	2.4	LLL/90	32

MISSILE WEAPON TYPES

Missile Weapon Type	Total Mass (mt)	Power To Arm	Damage	Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement	Availability	Cost (Mcr)
FP-1	200	1	10	12	L	4.4	1.3	RRI/67	30
FP-2	120	1	6	10	H	2.0	.9	RRI/75	18
FP-3	100	1	6	6	D	1.2	.8	RRI/78	15
FP-4	240	1	20	16	S	12.5	2.0	RRI/32	36
FP-5	200	1	16	16	R	9.5	1.8	RRI/45	30
FP-6	160	1	12	14	O	6.7	1.8	RRI/57	24
FP-7	210	1	8	16	R	4.8	.8	RRI/60	32

ACCELERATOR CANNON TYPES

Accel. Cannon Type	Total Mass (mt)	Power To Arm	Damage	Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement	Availability	Cost (Mcr)
FAC-1	480	3	8	8	F	0.6	1.5	RRI/52	10
FAC-2	660	4	10	10	G	1.4	2.4	RRI/46	14
FAC-3	840	4	12	10	H	2.0	2.9	RRI/40	16



KLINGON EMPIRE



CONTROL COMPUTER SYSTEM TYPES

Control Computer Type	System Mass (mt)	Appropriate Ship Classes	SS Requirement	Maximum WDF Allowed	Availability	Cost (MCr)
ZD-1	90	I - II	0.1	2	LLL/58	6
ZD-2	605	I - VII	0.4	7	LLL/52	21
ZD-3	1,900	III - VII	0.8	16	LLL/44	32
ZD-4	3,850	III - XII	1.2	25	LLL/37	94
ZD-5	7,100	VI - XIV	2.0	40	LLL/25	140
ZD-6	9,800	VII - XV	2.3	60	LLL/16	260
ZD-7	11,550	IX - XX	2.8	80	LLL/12	435
ZD-8	14,680	XI - XX	3.4	140	LLL/03	630

CONTROL COMPUTER SUITABILITY

Control Computer Type	Single Warp Engine Type	Tandem Warp Engine Type	Impulse Engine Type		Deflector Shield Generator Type		Maximum WDF Allowed
ZD-1	KWA-1	None	KIA KIB KIC-1	KIC-2 KID-2 KIE-1	KSA KSB		2
ZD-2	KWA KWB KWD-2 KWE-1	KWA-1	KIA KIB KIC	KID KIE-1 KIE-2	KSA KSB KSC KSE		7
ZD-3	KWA KWD KWB KWE-1 KWC-1 KWE-2 KWC-2	KWA-1 KWB-1 KWF	All But KIF-2		KSA KSB KSC	KSE KSI KSM	16
ZD-4	All But KWG	KWA KWB KWD-2 KWE-1	All		KSA KSB KSC KSD KSE	KSF KSI KSJ KSM	25
ZD-5	All	KWA KWE-1 KWB KWE-2 KWC-1 KWF KWD	All		KSA KSB KSC KSD KSE KSF	KSG KSI KSJ KSM KSN	40
ZD-6	All	All But KWG-1	All		All But KSL, KSP		60
ZD-7	All	All	All		All		80
ZD-8	All	All	All		All		140



CLOAKING DEVICE TYPES

Cloaking Device Type	Appropriate Ship Classes	Power To Energize	Control Computer Requirement	SS Requirement	Availability	Cost (MCr)
KCA	II - III	12	ZD-2	None	III/09	10,000
KCB	IV - V	22	ZD-3	None	III/07	15,000
KCC	VI - IX	32	ZD-5	None	III/03	30,000
KCD	X - XI	48	ZD-6	None	III/01	50,000

WARP ENGINE TYPES

Warp Engine Type	Total Mass (mt)	Power Units Available	Single Engine Use Control Computer Requirement	Stress Column (Eng/SS)	SS Requirement	Availability	Cost (MCr)
KWA-1	1,800	5	ZD-1	O/P	0.1	RR/51	24
KWA-2	2,500	10	ZD-2	P/Q	0.2	RR/48	37
KWB-1	6,000	8	ZD-2	M/O	0.5	RR/45	60
KWB-2	7,000	12	ZD-2	O/P	0.6	RR/40	77
KWB-3	10,000	13	ZD-2	P/P	1.1	RR/36	105
KWC-1	25,000	14	ZD-3	K/N	2.0	RR/39	500
KWC-2	25,000	18	ZD-3	L/N	2.0	RR/35	535
KWC-3	25,000	22	ZD-4	L/M	2.0	RR/29	650
KWD-1	30,000	16	ZD-3	K/M	2.4	RR/33	1,200
KWD-2	30,000	10	ZD-2	L/M	2.4	RR/26	1,150
KWE-1	40,000	9	ZD-2	H/L	3.2	RR/33	1,650
KWE-2	45,000	16	ZD-3	I/M	3.2	RR/25	2,375
KWE-3	45,000	20	ZD-4	J/M	3.2	III/18	2,900
KWF-1	35,000	15	ZD-3	H/I	2.8	RR/21	2,150
KWG-1	65,000	26	ZD-5	I/L	4.1	III/16	3,700

Warp Engine Type	Total Mass (mt)	Power Units Available	Tandem Engine Use Control Computer Requirement	Stress Column (Eng/SS)	SS Requirement	Availability	Cost (MCr)
KWA-1	3,600	5 ea	ZD-2	O/P	0.2	RR/51	52
KWA-2	5,000	10 ea	ZD-4	O/R	0.4	RR/48	81
KWB-1	12,000	9 ea	ZD-3	O/Q	1.0	RR/45	132
KWB-2	14,000	12 ea	ZD-4	P/Q	1.2	RR/40	170
KWB-3	20,000	13 ea	ZD-4	Q/Q	2.2	RR/36	220
KWC-1	50,000	14 ea	ZD-5	L/O	4.0	RR/39	1,150
KWC-2	50,000	18 ea	ZD-6	L/O	4.0	RR/35	1,200
KWC-3	50,000	23 ea	ZD-6	L/O	4.0	RR/29	1,350
KWD-1	60,000	18 ea	ZD-5	L/N	4.8	RR/33	2,640
KWD-2	60,000	12 ea	ZD-4	L/N	4.8	RR/26	2,530
KWE-1	80,000	11 ea	ZD-4	I/L	6.4	RR/33	3,630
KWE-2	90,000	18 ea	ZD-5	J/M	6.4	RR/25	5,225
KWE-3	90,000	20 ea	ZD-6	J/M	6.4	III/18	6,380
KWF-1	70,000	16 ea	ZD-5	H/J	5.6	RR/21	4,730
KWG-1	130,000	28 ea	ZD-7	I/M	8.2	III/16	8,140



MOVEMENT POINT RATIO TABLE: SINGLE WARP ENGINE

Movement Point Ratios

Ship Class	1/3	1/2	1/1	2/1	3/1	4/1	5/1	6/1	7/1
I	KWA-1 21.5 6/7	KWA-1 14 6/7 KWA-2 28.5 6/7	KWA-1 7 5/6 KWA-2 14 6/7						
II			KWA-1 7 5/6 KWA-2 14 6/7 KWB-1 11.5 6/7 KWB-2 17 6/7 KWB-3 18.5 7/8						
III				KWB-1 5.5 5/6 KWB-2 8.5 5/6	KWB-3 9 6/7	KWB-1 4 5/6			
IV				KWB-2 8.5 5/6 KWB-3 9 6/7	KWC-1 10 6.5 7/8 KWC-2 13 7/8	KWC-1 6.5 6/7	KWD-1 6 5/7		
V				KWC-3 15.5 7/8	KWB-3 6 5/6 KWC-1 6.5 6/7 KWC-2 8.5 6/7	KWC-3 10 6/7 KWE-3 9 7/8 KWF-1 7 8/9	KWD-1 6 5/7 KWE-1 3.5 5/7		
VI					KWC-1 6.5 6/7 KWC-2 8.5 6/7 KWC-3 10 6/7	KWE-3 9 7/8 KWF-1 7 8/9	KWE-2 5.5 6/7	KWD-1 4.5 4/6 KWD-2 3 5/7 KWE-1 3 5/6	
VII						KWC-1 5 6/7 KWC-2 6.5 5/6 KWC-3 8 5/6	KWE-2 5.5 6/7 KWE-3 7 6/7 KWF-1 5 7/8	KWD-2 2 5/6 KWE-1 2 4/6	
VIII						KWE-3 7 6/7 KWF-1 5 7/8	KWG-1 9 7/8	KWE-2 4.5 5/6	KWD-2 2 5/6 KWE-1 2 4/6
IX						KWE-3 7 6/7	KWG-1 9 7/8	KWE-2 4.5 5/6	KWE-1 2 4/6 KWE-2 4 5/6
X							KWE-3 5.5 5/6	KWG-1 7.5 6/7	KWE-1 2 4/6 KWE-2 4 5/6
XI								KWE-1 2 4/6 KWE-2 4 5/6	KWE-1 1.5 4/5
XII								KWE-2 4 5/6	KWG-1 6 5/6
XIII									KWE-1 1.5 4/5 KWE-1 1.5 4/5
XIV									KWE-1 1.5 4/5 KWE-1 1.5 4/5
XV									KWE-1 1.5 4/5 KWE-1 1.5 4/5
XVI									KWE-1 1.5 4/5 KWE-1 1.5 4/5
XVII									KWE-1 1.5 4/5 KWE-1 1.5 4/5
XVIII									KWE-1 1.5 4/5 KWE-1 1.5 4/5





MOVEMENT POINT RATIO TABLE: TANDEM WARP ENGINES

Movement Point Ratios

Ship Class	1/2	1/1	2/1	3/1	4/1	5/1	6/1	7/1
II	KWA-1 28.5 7/8	KWA-1 14 7/8 KWA-2 28.5 7/8	KWA-1 7 6/7 KWA-2 14 7/8	KWA-2 9 6/7				
III		KWB-1 25.5 7/8	KWA-1 7 6/7 KWA-2 14 7/8 KWB-1 13 6/7	KWA-2 9 6/7				
IV			KWB-1 13 6/7 KWB-2 17 8/9 KWB-3 9 6/7	KWB-1 8.5 5/6 KWB-2 11.5 7/8				
V				KWB-1 8.5 5/6 KWB-2 11.5 7/8	KWB-3 6 4/5			
VI				KWB-2 11.5 7/8 KWB-3 6 5/6	KWC-1 13 7/8 KWB-3 9 6/7	KWB-2 8.5 6/7 KWB-3 9 6/7		
VII				KWC-1 13 7/8 KWC-2 17 8/9	KWC-3 21.5 8/9 KWB-3 9 6/7	KWC-1 10 7/8 KWD-1 13 6/8		
VIII				KWC-2 17 8/9 KWC-3 21.5 8/9 KWE-1 10 6/8 KWE-3 19 8/9	KWF-1 15 8/9 KWB-2 8.5 6/7 KWB-3 9 6/7 KWC-1 10 7/8 KWC-3 16 7/8	KWD-1 13 6/8 KWD-2 8.5 5/7 KWE-1 7.5 5/7 KWE-2 13 7/8		
IX				KWC-2 17 8/9 KWE-3 19 8/9 KWF-1 15 8/9	KWC-2 13 7/8 KWC-3 16 7/8 KWD-1 13 6/8 KWD-2 8.5 5/7	KWE-1 7.5 5/7 KWE-2 10 6/7 KWE-3 13 7/8 KWF-1 11.5 7/8	KWB-3 7.5 5/6 KWE-2 10 6/7	
X				KWE-3 19 8/9	KWC-2 13 7/8 KWD-1 13 6/8 KWD-2 8.5 5/7	KWE-1 7.5 5/7 KWC-3 13 6/7 KWF-1 11.5 7/8	KWC-2 10 6/7 KWE-2 10 6/7 KWD-1 10 5/7	KWB-3 6 4/5 KWE-2 8.5 6/7
XI					KWC-2 13 7/8 KWE-3 14 7/8 KWF-1 11.5 7/8	KWC-2 10 6/7 KWC-3 13 6/7 KWD-1 10 5/7	KWD-2 6.5 5/7 KWE-1 6 5/7 KWD-2 5.5 4/6 KWE-2 8.5 6/7	
XII					KWE-3 14 7/8 KWE-3 11.5 6/7	KWD-1 10 5/7 KWE-1 6 5/7 KWE-2 8.5 6/7	KWF-1 9 6/7 KWD-2 5.5 4/6 KWE-1 5 5/6	KWD-2 7.5 5/6 KWF-1 7 5/6
XIII						KWE-3 11.5 6/7 KWD-1 10 5/7	KWD-2 5.5 4/6 KWF-1 7.5 5/6	KWD-2 5 4/5
XIV						KWD-1 10 5/7 KWD-2 11.5 6/7 KWD-3 19.5 6/8	KWF-1 13 6/7 KWD-2 5 4/5 KWE-2 7 5/6	KWD-2 5 4/5
XV							KWE-1 5 5/6 KWE-3 9 5/6	KWD-2 5 4/5 KWD-3 11 5/6
XVI							KWD-2 9 5/6 KWD-3 13 6/7	KWD-2 5 4/5 KWD-3 11 5/6
XVII								KWD-2 5 4/5 KWD-3 11 5/6
XVIII								KWD-2 5 4/5 KWD-3 11 5/6

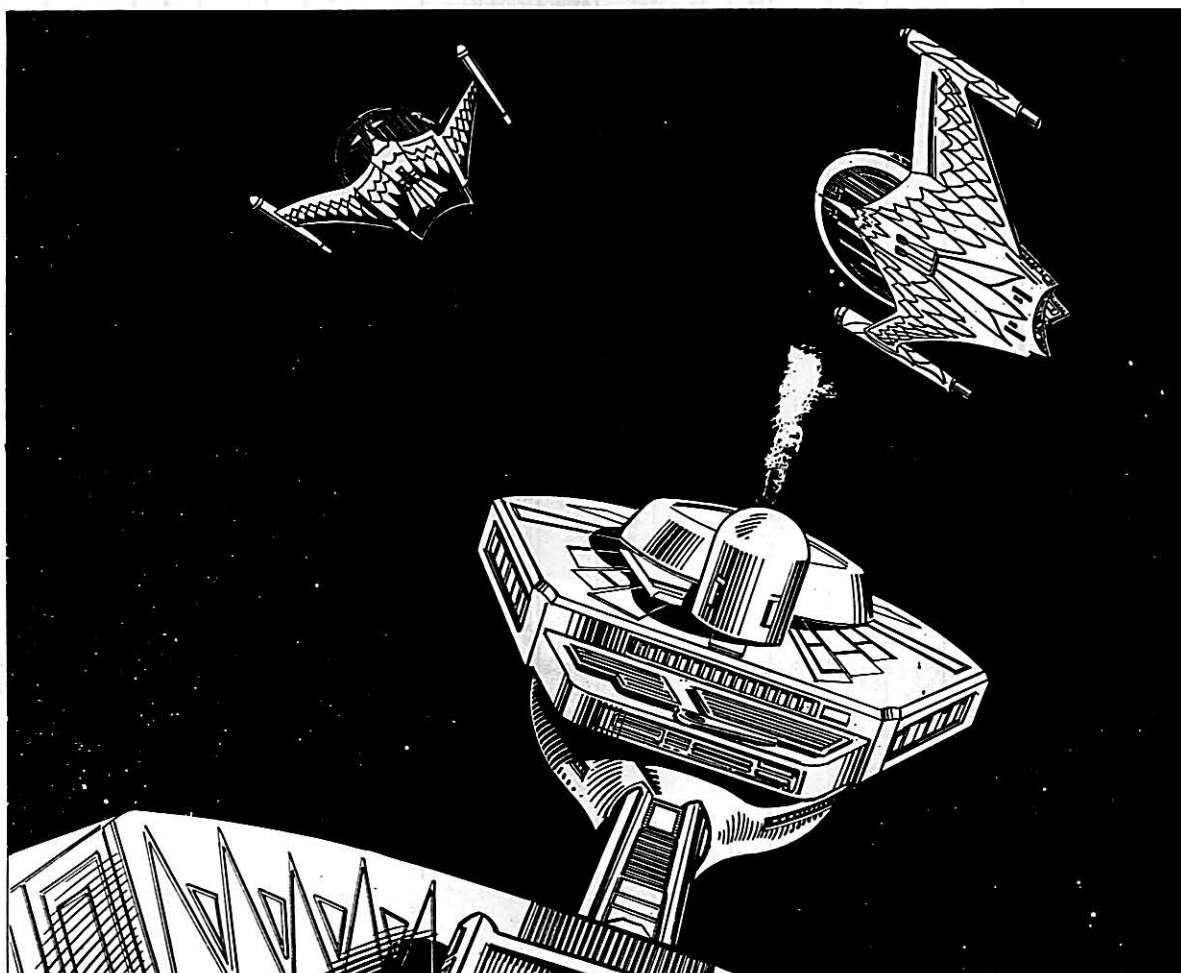




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IMPULSE ENGINE TYPES							
Engine Type	Total Mass (mt)	Power Units Available	Control Computer Requirement	Ship Classes Powered	SS Requirement	Availability	Cost (MCr)
KIA-1	213	1	ZD-1	I	0.1	RRI/48	17
KIA-2	213	2	ZD-1	II	0.1	RRI/42	28
KIA-3	213	3	ZD-1	II-III	0.1	RRI/39	40
KIB-1	325	3	ZD-1	II-V	0.1	RRI/43	34
KIB-2	325	2	ZD-1	V-X	0.1	RRI/40	38
KIC-1	568	2	ZD-1	II-V	0.1	RRI/37	41
KIC-2	568	4	ZD-1	V-X	0.1	RRI/35	50
KIC-3	568	5	ZD-2	IX-XII	0.1	RRI/32	68
KIC-4	568	8	ZD-2	X-XVIII	0.1	RRI/28	97
KID-1	715	6	ZD-2	V-VII	0.1	RRI/31	79
KID-2	715	4	ZD-1	VIII-XII	0.1	RRI/27	62
KIE-1	850	6	ZD-1	X-XIII	0.1	RRI/24	94
KIE-2	850	12	ZD-2	VIII-X	0.1	RRI/18	135
KIE-3	850	18	ZD-3	VI-VIII	0.1	RRI/12	181
KIF-1	960	17	ZD-3	XII-XVIII	0.1	RRI/18	174
KIF-2	960	23	ZD-4	VIII-XII	0.1	RRI/07	278



MOVEMENT POINT RATIO TABLE: IMPULSE ENGINE



Movement Point Ratios

Ship Class	1/3	1/2	1/1	2/1	Movement Point Ratios				3/1	4/1	5/1	6/1		7/1
I	KIA-1 4	KIA-1 3	KIA-1 1.5											
II		KIA-2 5.5	KIA-2 3 KIA-3 4 KIB-1 4 KIC-1 3	KIA-2 1.5 KIA-3 2 KIC-1 1.5	KIA-3 1.5 KIC-1 1									
III			KIB-1 4 KIC-1 3	KIB-1 2 KIC-1 1.5	KIA-3 1.5 KIC-1 1									
IV				KIB-1 2 KIC-1 1.5	KIB-1 1.5 KIC-1 1		KIB-1 1 KIC-1 0.5							
V				KIB-1 2	KIB-1 1.5 KIB-2 1 KIC-1 1	KIC-2 2 KID-1 3	KIB-1 1 KIB-2 0.5 KIC-1 0.5	KID-1 2						
VI					KIB-2 1 KIC-2 2	KID-1 3 KIE-3 9	KIB-2 0.5 KIC-2 1.5	KID-1 2 KIE-3 6.5	KIB-2 0.5 KIC-2 1	KID-1 1.5 KIE-3 5				
VII					KIB-2 1 KIC-2 2	KID-1 3 KIE-3 9	KIB-2 0.5 KIC-2 1.5	KID-1 2 KIE-3 6.5	KIB-2 0.5 KIC-2 1	KID-1 1.5 KIE-3 5	KIC-2 1 KID-1 1.5	KIE-3 4		
VIII					KIB-2 1 KIC-2 2 KID-2 2	KIE-2 5.5 KIF-2 11	KIB-2 0.5 KIC-2 1.5 KID-2 1.5	KIE-2 4 KIF-2 8	KIB-2 0.5 KIC-2 1 KID-2 1	KIE-3 5 KIF-2 6.5	KIC-2 1			
IX					KIB-2 1 KIC-2 2 KIC-3 2.5	KID-2 2 KIE-2 5.5 KIF-2 11	KIB-2 0.5 KIC-2 1.5 KIC-3 2	KID-2 1.5 KIE-2 4 KIF-2 8	KIB-2 0.5 KIC-2 1 KIC-3 1.5	KID-2 1 KIE-2 3.5 KIF-2 6.5	KIC-2 1 KIC-3 1 KID-2 1	KIE-2 3 KIF-2 5.5		
X					KIC-3 2.5 KID-2 2 KIE-1 3	KIE-2 5.5 KIF-2 11	KIC-3 2 KID-2 1.5 KIE-1 2	KIE-2 4 KIF-2 8	KIB-2 0.5 KIC-3 1.5 KID-2 1	KIE-1 1.5 KIE-2 3.5 KIF-2 6.5	KIC-2 1 KIC-3 1 KID-2 1	KIE-2 3 KIF-2 5.5	KIF-2 4.5	
XI							KIC-3 2 KID-2 1.5	KIE-1 2 KIF-2 8	KIC-3 1.5 KID-2 1	KIE-1 1.5 KIF-2 6.5	KIC-3 1 KID-2 1	KIE-1 1.5 KIF-2 5.5	KIE-1 1 KIF-2 4.5	
XII							KIC-3 2 KIC-4 3 KID-2 1.5	KIE-1 2 KIF-1 1 KIF-2 6	KIC-3 1.5 KIC-4 2 KID-2 1	KIE-1 1.5 KIF-1 5 KIF-2 6.5	KIC-3 1 KIC-4 2 KID-2 1	KIE-1 1.5 KIF-1 4 KIF-2 5.5	KIC-4 1.5 KIE-1 1	KIF-2 4.5
XIII									KIC-4 2 KIF-1 5		KIC-4 2 KIF-1 4		KIC-4 1.5 KIE-1 1	KIF-1 3.5
XIV									KIC-4 2	KIF-1 5	KIC-4 2	KIF-1 4	KIC-4 1.5	KIF-1 3.5
XV											KIC-4 2	KIF-1 4	KIC-4 1.5	KIF-1 3.5
XVI													KIC-4 1.5	KIF-1 3.5

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KLINGON EMPIRE



SHIELD GENERATOR TYPES

Shield Generator Type	Total Mass (mt)	Control Computer Requirement	Shield Efficiency Rating	SS Requirement	Availability	Cost (Mcr)
KSA	115	ZD-1	1	0.1	LRL/48	5
KSB	160	ZD-1	1	0.2	LRL/45	7
KSC	190	ZD-2	1	0.3	LRL/43	8
KSD	240	ZD-4	2	1.0	LRL/37	16
KSE	230	ZD-2	1	0.5	LRL/27	10
KSF	300	ZD-4	3/2	0.7	LRL/18	15
KSG	310	ZD-5	2	1.4	LRL/36	20
KSH	375	ZD-6	3	2.1	LRL/26	30
KSI	275	ZD-3	1	0.6	LRL/17	12
KSJ	360	ZD-4	3/2	0.8	LRL/42	18
KSK	375	ZD-6	2	2.0	LRL/35	24
KSL	450	ZD-7	3	2.1	LRL/25	36
KSM	345	ZD-3	1	0.9	LRL/16	15
KSN	450	ZD-5	3/2	1.1	LRL/33	23
KSO	470	ZD-6	2	2.1	LRL/23	30
KSP	560	ZD-7	3	2.2	LRL/14	45

MAXIMUM SHIELD POWER Shield Types/Shield Point Ratios

Ship Class	1/1						2/3			1/2				1/3		
	KSA	KSB	KSC	KSE	KSI	KSM	KSF	KSJ	KSN	KSD	KSG	KSK	KSO	KSH	KSL	KSP
I	10	10	12	12	15	15	14	15	15	14	15	15	15	15	15	15
	14.5	14.5	17	17	21.5	21.5	13.5	14.5	14.5	10	10.5	10.5	10.5	7	7	7
II	9	10	11	12	15	15	13	15	15	13	15	15	15	15	15	15
	13	14.5	15.5	17	21.5	21.5	12.5	14.5	14.5	9.5	10.5	10.5	10.5	7	7	7
III	7	8	11	11	14	15	13	15	15	12	14	15	15	15	15	15
	10	11.5	15.5	15.5	20	21.5	12.5	14.5	14.5	8.5	10	10.5	10.5	7	7	7
IV	5	8	11	11	14	15	12	14	15	11	13	15	15	14	15	15
	7	11.5	15.5	15.5	20	21.5	11.5	13.5	14.5	8	9.5	10.5	10.5	6.5	7	7
V	5	7	10	11	13	14	11	14	15	11	12	14	15	14	15	15
	7	10	14.5	15.5	18.5	20	10.5	13.5	14.5	8	8.5	10	10.5	6.5	7	7
VI	5	7	9	10	13	14	10	13	15	10	11	13	15	13	15	15
	7	10	13	14.5	18.5	20	9.5	12.5	14.5	7	8	9.5	10.5	6	7	7
VII	4	6	9	10	12	14	10	13	15	10	10	13	15	13	15	15
	5.5	8.5	13	14.5	17	20	9.5	12.5	14.5	7	7	9.5	10.5	6	7	7
VIII	3	5	8	9	11	13	9	12	14	8	9	12	15	12	14	15
	4.5	7	11.5	13	15.5	18.5	8.5	11.5	13.5	5.5	6.5	8.5	10.5	5.5	6.5	7
IX	2	4	7	8	10	12	9	11	14	8	9	12	15	11	14	15
	3	5.5	10	11.5	14.5	17	8.5	10.5	13.5	5.5	6.5	8.5	10.5	5	6.5	7
X	1	4	7	7	9	11	8	10	13	6	8	11	15	11	14	15
	1.5	5.5	10	10	13	15.5	7.5	9.5	12.5	4.5	5.5	8	10.5	5	6.5	7
XI	—	3	6	7	8	10	7	9	11	5	7	10	14	11	13	15
	—	4.5	8.5	10	11.5	14.5	6.5	8.5	10.5	3.5	5	7	10	5	6	7
XII	—	1	4	6	7	9	5	9	10	5	7	10	14	10	13	15
	—	1.5	5.5	8.5	10	13	5	8.5	9.5	3.5	5	7	10	5	6	7
XIII	—	—	1	4	5	7	3	8	9	4	6	9	13	9	12	15
	—	—	1.5	5.5	7	10	3	7.5	8.5	3	4.5	6.5	9.5	4.5	5.5	7
XIV	—	—	—	2	5	7	1	8	8	3	5	8	12	9	12	15
	—	—	—	3	7	10	1	7.5	7.5	2	3.5	5.5	8.5	4.5	5.5	7
XV	—	—	—	1	3	5	—	7	8	1	5	6	11	8	10	14
	—	—	—	1.5	4.5	7	—	6.5	7.5	0.5	3.5	4.5	8	4	5	6.5



KLINGON EMPIRE

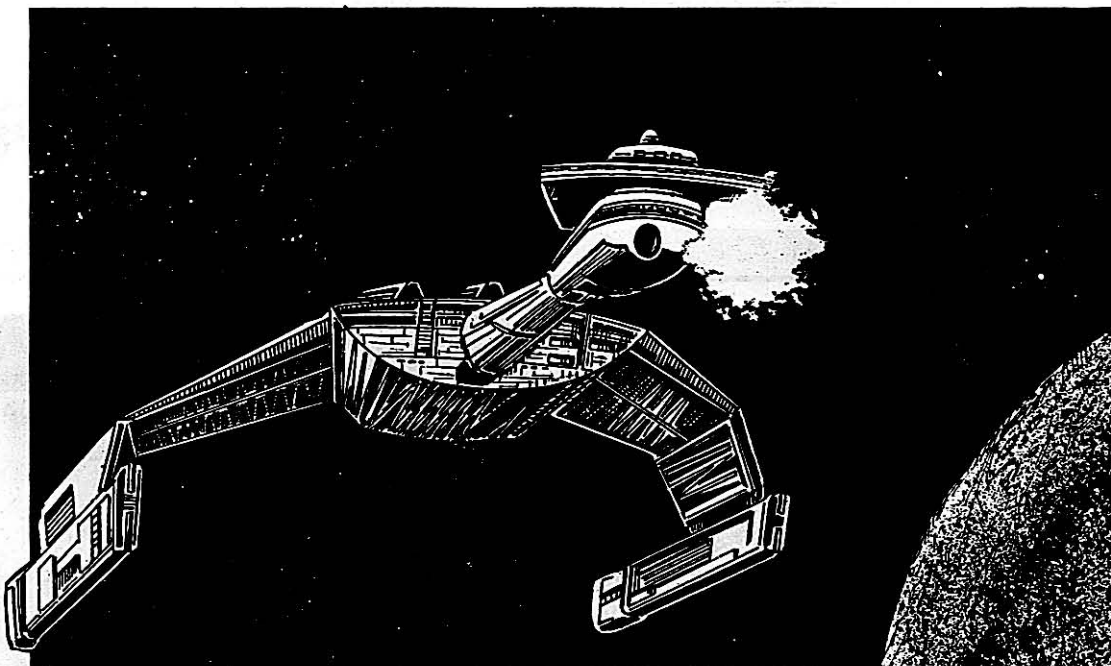


BEAM WEAPON TYPES

Disruptor Weapon Type	Total Mass (mt)	Maximum Beam Power	Disruptor Damage Modifiers			Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement (single/bank)	Availability	Cost (MCr)
			+3	+2	+1						
KD-1	150	4	-	-	-	10	B	0.7	0.3/0.6	RRI/61	46
KD-2	180	4	-	-	(1-10)	10	G	1.4	0.4/0.8	RRI/51	54
KD-3	210	5	-	-	(1-12)	12	I	2.7	0.6/1.2	III/48	64
KD-4	450	4	-	-	(1-10)	10	J	2.0	0.6/1.2	III/52	136
KD-5	575	4	-	(1-10)	(11-18)	18	P	3.1	0.8/1.6	III/38	172
KD-6	600	6	-	(1-18)	-	18	T	5.1	0.9/1.8	III/35	180
KD-7	350	7	-	(1-6)	(7-12)	12	L	3.8	1.1/2.2	III/46	106
KD-8	800	7	(1-7)	(8-15)	(16-20)	20	U	6.1	1.6/3.2	III/31	240
KD-9	600	5	(1-7)	(8-15)	(16-20)	20	W	5.0	1.3/2.6	III/30	182
KD-10	300	3	-	-	(1-6)	6	C	0.7	0.5/1.0	RRI/60	90
KD-11	340	5	-	(1-4)	(5-8)	8	F	1.7	0.6/1.2	III/56	102
KD-12	700	9	(1-3)	(4-8)	(9-10)	10	H	3.7	1.0/2.0	III/52	210
KD-13	520	5	(1-7)	(8-15)	(16-22)	22	X	5.7	1.6/3.2	III/28	156
KD-14	660	8	-	(1-6)	-	6	D	2.1	0.6/1.2	III/55	200

MISSILE WEAPON TYPES

Missile Weapon Type	Total Mass (mt)	Power To Arm	Damage	Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement	Availability	Cost (MCr)
KP-1	225	1	6	8	F	1.5	0.8	III/55	80
KP-2	375	1	10	10	H	3.3	1.0	III/51	120
KP-3	550	2	15	16	R	4.5	1.0	III/45	200
KP-4	675	2	18	14	Q	4.9	1.3	III/41	210
KP-5	300	1	10	14	Q	5.5	1.2	III/50	120
KP-6	600	2	20	16	R	5.9	1.6	III/38	240





ROMULAN STAR EMPIRE

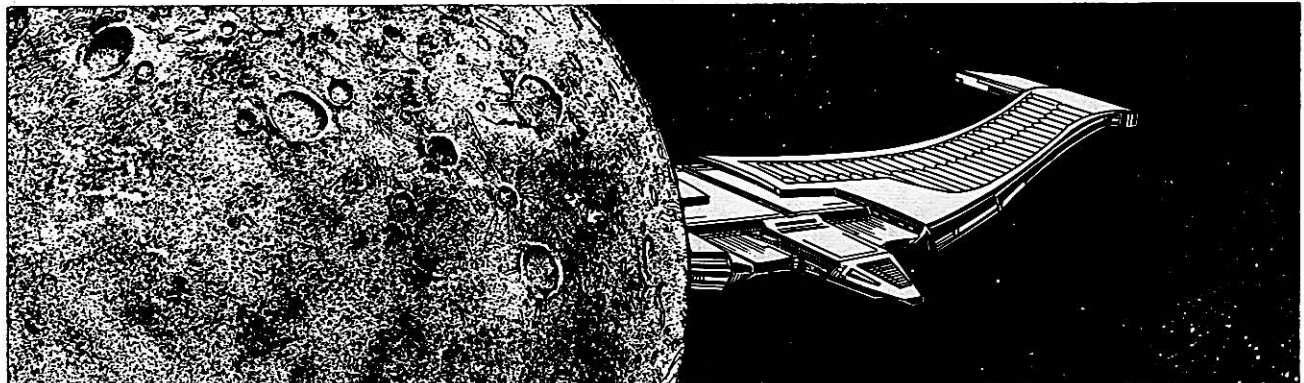


CONTROL COMPUTER SYSTEM TYPES

Control Computer Type	System Mass (mt)	Appropriate Ship Classes	SS Requirement	Maximum WDF Allowed	Availability	Cost (MCr)
R1M	60	I – III	0.1	3	LLL/43	6
R2M	680	II – IX	0.5	8	LLL/39	24
R3M	1950	II – X	0.8	25	LLL/32	34
R4M	3170	III – XII	1.0	50	LLL/28	70
R5M	5250	VI – XV	1.8	75	LLL/14	100
R6M	8100	X – XIX	2.1	105	LLL/05	230

CONTROL COMPUTER SUITABILITY

Control Computer Type	Single Warp Engine Type		Tandem Warp Engine Type	Impulse Engine Type		Deflector Shield Generator Type		Cloaking Device Type	Maximum WDF Allowed
R1M	RWA		—	RIA	RIB	RSA	RSB	None	3
				RIC	RID-1				
R2M	RWA	RWD-1	RWA-1	RIA	RIDF	RSA	RSD	None	8
	RWB	RWE		RIB	RIE-1	RSB	RSG		
	RWC			RIC		RSC			
R3M	RWA	RWD	RWA	RIA	RIE	RSA	RSE	RCA	25
	RWB	RWE	RWB-1	RIB	RIF-1	RSB	RSG	RCB	
	RWC	RWF		RIC	RIF-2	RSC	RSJ		
						RSM			
R4M	All		RWA	All	RSA	RSG		RCA	50
			RWB		RSB	RSH		RCB	
			RWC		RSC	RSJ		RCC	
			RWD-1		RSD	RSK			
			RWE		RSE	RSM			
			RWF-1		RSF				
R5M	All		All	All	All But RSL, RSO	RCA		RCC	75
						RCB		RCD	
R6M	All		All	All		All		All	105





ROMULAN STAR EMPIRE



CLOAKING DEVICE TYPES

Cloaking Device Type	Appropriate Ship Classes	Power To Energize	Control Computer Requirement	SS Requirement	Availability	Cost (MCr)
RCA	II - III	8	R2M	None	III/05	12,000
RCB	IV - V	10	R3M	None	III/04	20,000
RCC	VI - IX	15	R4M	None	III/02	45,000
RCD	X - XI	22	R5M	None	III/01	70,000
RCE	XII	38	R5M	None	III/01	90,000

WARP ENGINE TYPES

Single Engine Use

Warp Engine Type	Total Mass (mt)	Power Units Available	Control Computer Requirement	Stress Column (Eng/SS)	SS Requirement	Availability	Cost (MCr)
RWA-1	3,000	6	R1M	K/M	0.2	RRR/48	4.2
RWA-2	2,800	8	R1M	J/L	0.2	RRR/44	5.0
RWB-1	8,000	10	R2M	K/O	0.6	RRR/44	7.2
RWB-2	8,200	9	R2M	L/O	0.6	RRR/40	8.5
RWC-1	20,000	12	R2M	K/O	1.6	RRR/39	49
RWC-2	20,000	14	R2M	L/P	1.6	RRR/35	50
RWD-1	30,000	15	R2M	N/O	2.4	RRR/32	145
RWD-2	30,000	18	R3M	O/Q	2.4	RRR/28	192
RWE-1	40,000	12	R2M	H/J	3.2	RRR/26	206
RWF-1	50,000	16	R3M	F/K	4.0	RRR/21	312
RWF-2	50,000	18	R3M	F/L	4.0	RRR/18	322
RWG-1	70,000	22	R4M	D/F	5.6	RRR/15	497
Warp Engine Type	Total Mass (mt)	Power Units Available	Control Computer Requirement	Stress Column (Eng/SS)	SS Requirement	Availability	Cost (MCr)
RWA-1	6,000	6 ea	R2M	M/O	0.4	RRR/48	9.6
RWA-2	5,600	9 ea	R3M	J/M	0.4	RRR/44	11.0
RWB-1	16,000	10 ea	R3M	M/P	1.2	RRR/44	15.4
RWB-2	16,400	11 ea	R4M	N/P	1.2	RRR/40	18.7
RWC-1	40,000	12 ea	R4M	M/P	3.2	RRR/39	107
RWC-2	40,000	15 ea	R4M	N/Q	3.2	RRR/35	110
RWD-1	60,000	16 ea	R4M	O/O	4.8	RRR/32	319
RWD-2	60,000	20 ea	R5M	O/Q	4.8	RRR/28	422
RWE-1	80,000	13 ea	R4M	I/L	6.4	RRR/26	453
RWF-1	100,000	18 ea	R4M	G/L	8.0	RRR/21	686
RWF-2	100,000	20 ea	R5M	G/M	8.0	RRR/18	708
RWG-1	140,000	24 ea	R5M	G/L	11.2	RRR/15	10,95

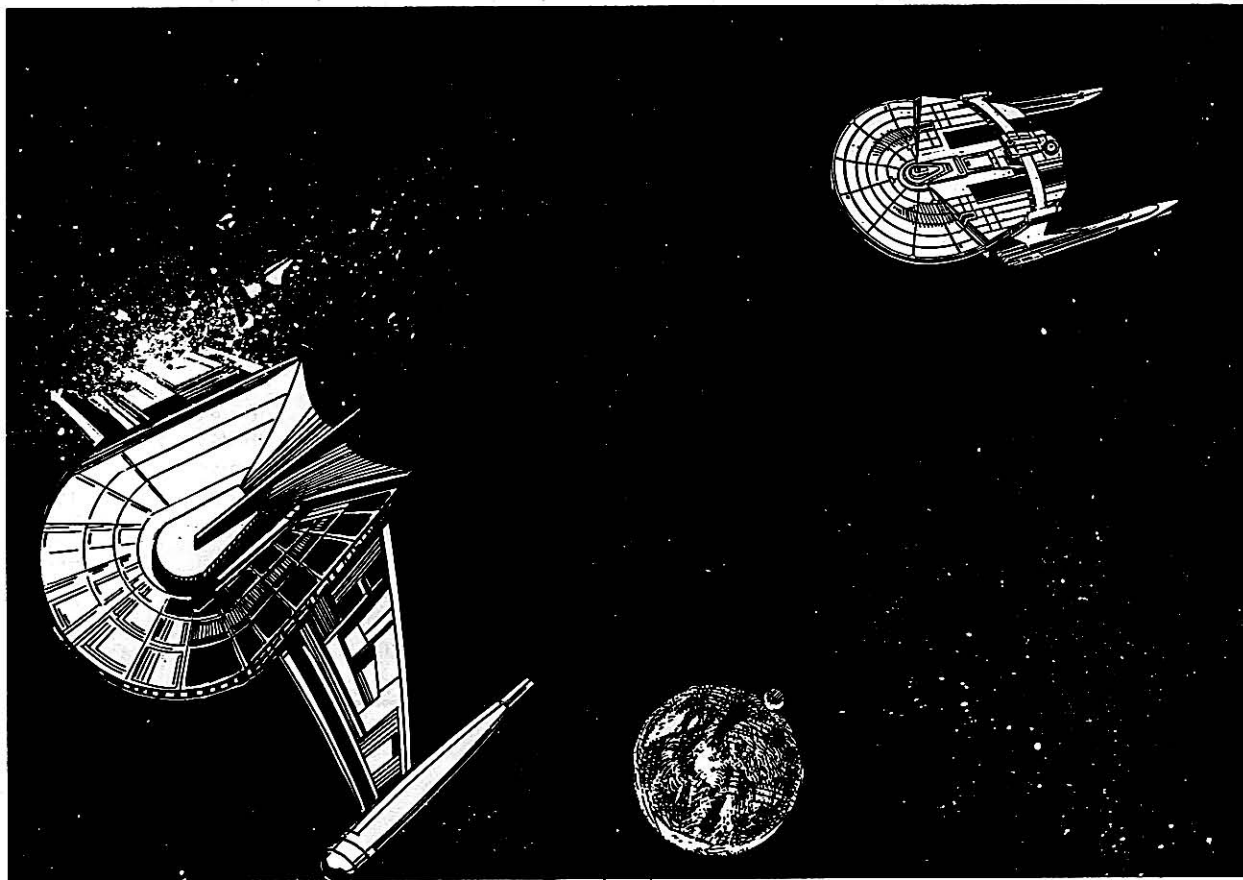


ROMULAN STAR EMPIRE



IMPULSE ENGINE TYPES

Engine Type	Total Mass (mt)	Power Units Available	Control Computer Requirement	Ship Classes Powered	SS Requirement	Availability	Cost (MCr)
RIA-1	188	1	R1M	I	0.1	RRR/44	10
RIA-2	188	2	R1M	I-II	0.1	RRR/42	17
RIA-3	188	3	R1M	I-II	0.1	RRR/40	26
RIB-1	263	2	R1M	II-VII	0.1	RRR/40	20
RIB-2	263	3	R1M	III-IX	0.1	RRR/37	30
RIB-3	263	5	R1M	IV-IX	0.1	RRR/34	48
RIC-1	505	1	R1M	II-V	0.1	RRR/35	21
RIC-2	505	4	R1M	IV-VIII	0.1	RRR/32	31
RIC-3	505	5	R1M	VIII-X	0.1	RRR/29	50
RIC-4	505	6	R1M	X-XIII	0.1	RRR/23	60
RID-1	700	4	R1M	VII-XIII	0.1	RRR/29	34
RID-2	700	8	R2M	VIII-XIII	0.1	RRR/26	62
RID-3	700	12	R2M	V-XIII	0.1	RRR/21	117
RIE-1	788	10	R2M	V-XIV	0.1	RRR/22	104
RIE-2	788	15	R3M	VII-XVII	0.1	RRR/18	151
RIE-3	788	20	R3M	X-XVIII	0.1	RRR/14	178
RIF-1	900	12	R3M	XII-XIX	0.1	RRR/12	122
RIF-2	900	18	R3M	XII-XIX	0.1	RRR/10	202
RIF-3	900	28	R4M	XIII-XIX	0.1	RRR/04	306





ROMULAN STAR EMPIRE



MOVEMENT POINT RATIO TABLE: SINGLE WARP ENGINE
Movement Point Ratios

Ship Class	1/3	1/2	1/1	2/1	3/1	4/1	5/1	6/1
I	RWA-1 25.5 7/8 RWA-2 34 7/8	RWA-2 23 7/8	RWA-2 11.5 7/8					
II		RWA-1 17 7/8	RWA-2 11.5 7/8 RWB-1 14 8/7 RWB-2 13 8/7					
III			RWA-1 8.5 6/7	RWA-1 4 5/6 RWA-2 5.5 6/7 RWB-1 7 5/6	RWB-2 6.5 6/7 RWC-1 8.5 6/8 RWC-2 10 6/8			
IV				RWC-1 8.5 6/8 RWC-2 10 6/8	RWD-1 11 7/8 RWD-2 13 7/8	RWC-1 5.5 5/7		
V				RWD-1 11 7/8 RWD-2 13 7/8	RWC-2 6.5 5/7 RWE-1 6 7/8	RWF-1 7.5 7/9 RWF-2 8.5 7/9		
VI				RWD-1 11 7/8 RWD-2 13 7/8	RWD-1 7 6/7 RWD-2 8.5 8/7 RWE-1 6 7/8	RWF-1 7.5 7/9 RWF-2 8.5 7/8		
VII					RWD-1 7 6/7 RWD-2 8.5 6/7 RWE-1 6 7/8	RWF-1 7.5 7/9 RWF-2 8.5 7/8	RWD-1 5 5/6 RWD-2 6 5/6	
VIII					RWE-1 6 7/8 RWF-1 7.5 7/9	RWF-2 8.5 7/8	RWD-1 5 5/6 RWD-2 6 5/6	RWG-1 7.5 7/8
IX					RWE-1 6 7/8 RWF-1 7.5 7/9 RWF-2 8.5 7/8	RWD-1 5 5/6 RWD-2 6 5/6 RWE-1 4 6/7	RWF-1 6 6/8 RWF-2 6 6/7 RWG-1 7.5 7/9	RWG-1 6 6/8
X						RWE-1 4 6/7 RWF-1 6 6/8	RWF-2 6 6/7	RWD-2 5 4/5 RWG-1 6 6/8
XI						RWE-1 4 6/7	RWF-1 6 6/8	RWG-1 6 6/8
XII						RWE-1 4 6/7	RWF-1 6 6/8	RWF-1 4.5 5/7
XIII							RWE-1 3 5/6	RWF-1 4.5 5/7
XIV							RWE-1 3 5/6	RWF-1 4.5 5/7
XV							RWE-1 3 5/6	RWF-1 4.5 5/7



MOVEMENT POINT RATIO TABLE: TANDEM WARP ENGINES

Ship Class	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX
	RWA-1 7/8	RWA-2 6/7	RWA-1 5/6	RWB-1 5/6	RWB-2 5/6	RWC-1 5/6	RWC-2 5/6	RWD-1 5/6	RWD-2 5/6	RWE-1 5/6	RWE-2 5/6	RWF-1 5/6	RWF-2 5/6	RWG-1 5/6	RWG-2 5/6	RWD-1 5/6	RWD-2 5/6	RWF-1 5/6
1/1	RWA-1 7/8	RWA-2 6/7	RWA-1 5/6	RWB-1 5/6	RWB-2 5/6	RWC-1 5/6	RWC-2 5/6	RWD-1 5/6	RWD-2 5/6	RWE-1 5/6	RWE-2 5/6	RWF-1 5/6	RWF-2 5/6	RWG-1 5/6	RWG-2 5/6	RWD-1 5/6	RWD-2 5/6	RWF-1 5/6
2/1	RWA-1 6/7	RWA-2 5/6	RWA-1 4/5	RWB-1 4/5	RWB-2 4/5	RWC-1 4/5	RWC-2 4/5	RWD-1 4/5	RWD-2 4/5	RWE-1 4/5	RWE-2 4/5	RWF-1 4/5	RWF-2 4/5	RWG-1 4/5	RWG-2 4/5	RWD-1 4/5	RWD-2 4/5	RWF-1 4/5
3/1	RWA-1 5/6	RWA-2 4/5	RWA-1 3/4	RWB-1 3/4	RWB-2 3/4	RWC-1 3/4	RWC-2 3/4	RWD-1 3/4	RWD-2 3/4	RWE-1 3/4	RWE-2 3/4	RWF-1 3/4	RWF-2 3/4	RWG-1 3/4	RWG-2 3/4	RWD-1 3/4	RWD-2 3/4	RWF-1 3/4
4/1	RWA-1 4/5	RWA-2 3/4	RWA-1 2/3	RWB-1 2/3	RWB-2 2/3	RWC-1 2/3	RWC-2 2/3	RWD-1 2/3	RWD-2 2/3	RWE-1 2/3	RWE-2 2/3	RWF-1 2/3	RWF-2 2/3	RWG-1 2/3	RWG-2 2/3	RWD-1 2/3	RWD-2 2/3	RWF-1 2/3
5/1	RWA-1 3/4	RWA-2 2/3	RWA-1 1/2	RWB-1 1/2	RWB-2 1/2	RWC-1 1/2	RWC-2 1/2	RWD-1 1/2	RWD-2 1/2	RWE-1 1/2	RWE-2 1/2	RWF-1 1/2	RWF-2 1/2	RWG-1 1/2	RWG-2 1/2	RWD-1 1/2	RWD-2 1/2	RWF-1 1/2
6/1	RWA-1 2/3	RWA-2 1/2	RWA-1 1/3	RWB-1 1/3	RWB-2 1/3	RWC-1 1/3	RWC-2 1/3	RWD-1 1/3	RWD-2 1/3	RWE-1 1/3	RWE-2 1/3	RWF-1 1/3	RWF-2 1/3	RWG-1 1/3	RWG-2 1/3	RWD-1 1/3	RWD-2 1/3	RWF-1 1/3
7/1	RWA-1 1/2	RWA-2 1/3	RWA-1 1/4	RWB-1 1/4	RWB-2 1/4	RWC-1 1/4	RWC-2 1/4	RWD-1 1/4	RWD-2 1/4	RWE-1 1/4	RWE-2 1/4	RWF-1 1/4	RWF-2 1/4	RWG-1 1/4	RWG-2 1/4	RWD-1 1/4	RWD-2 1/4	RWF-1 1/4



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SHIELD GENERATOR TYPES

Shield Generator Type	Total Mass (mt)	Control Computer Requirement	Shield Efficiency Rating	SS Requirement	Availability	Cost (MCr)
RSA	105	R1M	1	0.2	LRL/35	3
RSB	145	R1M	1	0.3	LRL/33	5
RSC	205	R2M	2	0.9	LRL/22	10
RSD	170	R2M	1	0.5	LRL/32	6
RSE	235	R3M	2	1.1	LRL/21	15
RSF	330	R4M	3	1.9	LRL/15	19
RSG	230	R2M	1	0.7	LRL/29	8
RSH	320	R4M	2	1.4	LRL/20	18
RSI	450	R5M	3	2.0	LRL/12	25
RSJ	270	R3M	1	0.8	LRL/28	10
RSK	380	R4M	2	1.9	LRL/17	21
RSL	530	R6M	3	2.1	LRL/11	29
RSM	315	R3M	1	0.9	LRL/27	11
RSN	440	R5M	2	2.0	LRL/16	24
RSO	615	R6M	3	2.4	LRL/10	35

MAXIMUM SHIELD POWER
Shield Types/Shield Point Ratios

Ship Class	1/1						1/2					1/3			
	RSA	RSB	RSD	RSG	RSJ	RSM	RSC	RSE	RSH	RSK	RSN	RSF	RSI	RSL	RSO
I	5 7	9 13	12 17	15 21.5	15 21.5	15 21.5	12 8.5	14 10	15 10.5	15 10.5	15 10.5	15 7	15 7	15 7	15 7
II	5 7	8 11.5	10 14.5	14 20	15 21.5	15 21.5	10 7	13 9.5	15 10.5	15 10.5	15 10.5	15 7	15 7	15 7	15 7
III	5 7	7 10	9 13	14 20	15 21.5	15 21.5	8 5.5	12 8.5	14 10	15 10.5	15 10.5	13 6	15 7	15 7	15 7
IV	4 5.5	7 10	8 11.5	14 20	15 21.5	15 21.5	7 5	10 7	13 9.5	15 10.5	15 10.5	10 5	15 7	15 7	15 7
V	4 5.5	6 8.5	8 11.5	13 18.5	14 20	15 21.5	6 4	8 5.5	11 8	14 10	15 10.5	8 4	14 6.5	15 7	15 7
VI	3 4.5	5 7	7 10	13 18.5	14 20	15 21.5	5 3.5	8 5.5	11 8	14 10	15 10.5	8 4	14 6.5	15 7	15 7
VII	3 4.5	4 5.5	7 10	12 17	14 20	15 21.5	5 3.5	7 5	10 7	14 10	15 10.5	7 3.5	12 5.5	15 7	15 7
VIII	2 3	3 4.5	7 10	11 15.5	13 18.5	15 21.5	5 3.5	6 4	8 5.5	13 9.5	15 10.5	7 3.5	11 5	15 7	15 7
IX	1 1.5	2 3	6 8.5	10 14.5	13 18.5	15 21.5	4 3	5 3.5	6 4	13 9.5	15 10.5	6 3	11 5	14 6.5	15 7
X	1 1.5	1 1.5	6 8.5	9 13	13 18.5	15 21.5	3 2	5 3.5	6 4	12 8.5	15 10.5	6 3	10 5	14 6.5	15 7
XI	—	1 1.5	5 7	7 10	12 17	13 18.5	2 1.5	4 3	5 3.5	12 8.5	15 10.5	5 2.5	8 4	13 6	15 7
XII	—	—	4 5.5	5 7	10 14.5	11 15.5	2 1.5	3 2	5 3.5	11 8	15 10.5	5 2.5	7 3.5	13 6	15 7
XIII	—	—	2 3	3 4.5	8 11.5	9 13	1 0.5	2 1.5	4 3	10 7	15 10.5	4 2	6 3	12 5.5	15 7
XIV	—	—	1 1.5	2 3	6 8.5	7 10	—	1 0.5	3 2	8 5.5	13 9.5	4 2	5 2.5	11 5	15 7
XV	—	—	—	1 1.5	3 4.5	5 7	—	—	3 2	7 5	10 7	4 2	5 2.5	10 5	14 6.5



ROMULAN STAR EMPIRE



BEAM WEAPON TYPES

Beam Weapon Type	Total Mass (mt)	Maximum Beam Power	Damage Modifiers			Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement (single/bank)	Availability	Cost (MCr)
			+3	+2	+1						
RB-1	200	2	—	—	—	10	G	0.5/0.8	0.5/0.8	RRI/46	45
RB-2	225	2	—	—	—	15	K	0.8/1.2	0.6/0.9	RRI/44	51
RB-2a	400	3	(1-4)	(5-9)	(10-14)	15	K	2.1/3.2	0.8/1.2	III/30	120
RB-3	600	6	—	—	(1-4)	4	A	0.8/1.2	0.3/0.5	RRI/40	135
RB-3a	750	6	(1-3)	(4-8)	(9-12)	12	L	3.7/5.6	0.7/1.0	III/38	165
RB-4	650	6	(1-2)	(3-6)	(7-10)	10	J	3.2/4.8	0.6/0.9	III/34	142
RB-5	750	5	(1-10)	(11-16)	(17-21)	21	V	4.7/7.1	1.5/2.3	III/18	168
RB-6	650	6	—	(1-18)	—	18	T	5.1/7.7	1.3/1.9	III/28	146
RB-7	500	4	—	(1-6)	(7-10)	10	J	2.3/3.5	0.6/0.9	III/35	100
RB-7a	675	4	(1-3)	(4-9)	(10-14)	14	M	3.0/4.5	0.9/1.2	III/18	150
RB-8	600	6	(1-4)	(5-9)	(10-13)	13	N	4.1/6.2	1.0/1.5	III/31	140
RB-9	700	6	(1-8)	(9-16)	(17-20)	20	W	6.5/9.8	1.5/2.3	III/24	162
RB-10	750	8	(1-8)	(9-16)	(17-20)	20	U	6.9/10.4	1.6/2.4	III/22	183
RB-11	850	9	(1-10)	(11-16)	(17-21)	21	V	7.9/11.9	1.8/2.8	III/16	210

MISSILE WEAPON TYPES

Missile Weapon Type	Total Mass (mt)	Power To Arm	Damage	Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement	Availability	Cost (MCr)
RP-1	135	1	6	8	F	1.5/2.3	0.8	III/36	34
RP-2	180	1	8	10	H	2.4/3.6	1.0	III/32	45
RP-3	225	1	10	14	Q	5.5/8.3	1.2	III/28	55

PLASMA WEAPON TYPES

Plasma Weapon Type	Total Mass (mt)	Power To Arm	Weapon Damage Chart	Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement	Availability	Cost (MCr)
RPL-1	120	10	RL-1	8	E	3.9/5.8	2.1	III/28	270
RPL-2	180	15	RL-2	14	M	11.1/16.6	3.4	III/24	500
RPL-3	150	8	RL-3	18	T	13.7/20.5	2.5	III/31	325

TOTAL DAMAGE FROM ROMULAN PLASMA WEAPONS

Range	RL-1	RL-2	RL-3
1	24/12	32/16	28/14
2	20/10	32/16	28/14
3	20/10	32/16	28/14
4	16/8	24/12	28/14
5	16/8	24/12	24/12
6	12/6	24/12	24/12
7	8/4	20/10	24/12
8	4/2	20/10	24/12
9	—	16/8	20/10
10	—	16/8	20/10
11	—	12/6	20/10
12	—	12/6	16/8
13	—	8/4	16/8
14	—	8/4	12/6
15	—	—	12/6



ORION COLONIES



CONTROL COMPUTER SYSTEM TYPES

Control Computer Type	System Mass (mt)	Appropriate Ship Classes	SS Requirement	Maximum WDF Allowed	Availability	Cost (MCr)
Mark I	40	I-III	0.1	2	LLL/68	3
Mark II	320	II-VI	0.3	8	LLL/63	9
Mark III	860	II-X	0.5	22	LLL/59	22
Mark IV	2750	III-X	1.0	40	LLL/52	50

CONTROL COMPUTER SUITABILITY

Control Computer Type	Single Warp Engine Type	Tandem Warp Engine Type	Impulse Engine Type	Dellector Shield Generator Type	Maximum WDF Allowed
Mark I	OWB OWC		OIA OIB-1	OSA OSB OSD OSE OSG	2
Mark II	OWB OWC OWD OWE	OWC	All	OSA OSB OSC OSD OSE OSG OSH	8
Mark III	All	All But OWA	All	All but OSJ	22
Mark IV	All	All	All	All	40

WARP ENGINE TYPES

Warp Engine Type	Total Mass (mt)	Power Units Available	Single Engine Use		SS Requirement	Availability	Cost (MCr)
			Control Computer Requirement	Stress Column (Eng/SS)			
OWA-1	6,000	15	Mark III	E/D	0.5	RRR/55	65
OWA-2	6,000	17	Mark III	F/D	0.5	RRR/50	85
OWB-1	1,400	8	Mark I	C/D	0.2	RRR/65	20
OWC-1	3,000	6	Mark I	E/E	0.4	RRR/60	38
OWD-1	10,000	12	Mark II	J/L	1.0	RRR/57	200
OWE-1	8,000	10	Mark II	J/K	0.8	RRR/54	175
Warp Engine Type	Total Mass (mt)	Power Units Available	Tandem Engine Use		SS Requirement	Availability	Cost (MCr)
			Control Computer Requirement	Stress Column (Eng/SS)			
OWA-1	12,000	15 ea	Mark IV	G/F	1.0	RRR/55	145
OWA-2	12,000	17 ea	Mark IV	G/F	1.0	RRR/50	180
OWB-1	2,800	9 ea	Mark III	D/F	0.4	RRR/65	45
OWC-1	6,000	6 ea	Mark II	E/F	0.8	RRR/60	80
OWD-1	20,000	12 ea	Mark III	K/M	2.0	RRR/57	440
OWE-1	16,000	10 ea	Mark III	K/L	1.6	RRR/64	390

MOVEMENT POINT RATIO TABLE:

SINGLE WARP ENGINE

Ship Class	Movement Point Ratios				
	1/2	1/1	2/1	3/1	4/1
I	OWB-1 23 5/8 OWC-1 17 7/8	OWB-1 11.5 4/7	OWB-1 5.5 4/6		
II		OWA-1 21.5 8/10 OWA-2 24.5 8/10 OWC-1 8.5 6/7	OWA-1 10.5 8/9 OWA-2 12 7/9 OWB-1 5.5 4/6		
III			OWA-2 12 7/9 OWC-1 4 5/7 OWD-1 8.5 6/8 OWE-1 7 6/7	OWA-1 7 7/8 OWA-2 8 6/8	
IV				OWA-2 8 6/8 OWD-1 5.5 6/7 OWE-1 5 6/7	
V				OWD-1 5.5 6/7 OWE-1 5 6/7	
VI					OWD-1 4 5/6 OWE-1 3.5 5/6



ORION COLONIES

MOVEMENT POINT RATIO TABLE:

TANDEM WARP ENGINES

Ship Class	Movement Point Ratios			
	1/1	2/1	3/1	4/1
II	OWC-1 17 7/8	OWB-1 13 6/9		
III	OWA-2 46 8/10	OWA-1 21.5 8/10 OWA-2 24.5 7/9 OWB-1 13 6/9 OWC-1 8.5 6/8	OWA-1 14.5 8/10	
IV		OWA-2 24.5 6/8 OWD-1 17 6/8 OWE-1 14 7/8	OWA-1 14.5 8/10 OWB-1 8 5/8 OWC-1 5.5 5/7	OWA-1 10.5 7/9
V		OWD-1 17 6/8 OWA-2 24.5 6/8	OWA-2 16 7/8 OWE-1 9.5 6/7	OWA-1 10.5 7/9 OWB-1 5.5 5/7
VI		OWD-1 17 6/8	OWD-1 11.5 6/7 OWE-1 9.5 6/7	OWA-2 12 6/7
VII			OWD-1 11.5 6/7	OWE-1 7 5/6
VIII			OWD-1 11.5 6/7	OWE-1 7 5/6
IX			OWD-1 11.5 6/7	OWD-1 8.5 5/7
X				OWD-1 8.5 5/7



ORION COLONIES



IMPULSE ENGINE TYPES							
Engine Type	Total Mass (mt)	Power Units Available	Control Computer Required	Ship Classes Powered	SS Requirement	Availability	Cost (Mcr)
OIA-1	23	1	Mark I	I	0.1	RRR/75	10
OIA-2	23	2	Mark II	I-II	0.1	RRR/70	19
OIA-3	23	3	Mark II	I-II	0.1	RRR/68	28
OIB-1	75	1	Mark I	III-IV	0.1	RRR/70	12
OIB-2	75	2	Mark II	IV-V	0.1	RRR/65	22
OIB-3	75	3	Mark II	IV-VI	0.1	RRR/60	33
OIC-1	200	2	Mark II	V	0.1	RRR/63	26
OIC-2	200	4	Mark II	V-VII	0.1	RRR/58	32
OIC-3	200	6	Mark III	VIII-X	0.1	RRR/52	45

MOVEMENT POINT RATIO TABLE: IMPULSE ENGINES					
Ship Class	Movement Point Ratios				
	1/2	1/1	2/1	3/1	4/1
I	OIA-1 3 OIA-2 5.5 OIB-1 3	OIA-1 1.5 OIA-2 3 OIB-1 1.5	OIA-1 0.5 OIA-2 1.5 OIA-3 2 OIB-1 0.5		
II		OIA-2 3 OIB-1 1.5	OIA-2 1.5 OIA-3 2 OIB-1 0.5		
III		OIB-1 1.5	OIB-1 0.5	OIB-1 0.5	
IV			OIB-1 0.5 OIB-2 1.5 OIB-3 2	OIB-1 0.5 OIB-2 1 OIB-3 1.5	OIB-2 0.5
V			OIB-2 1.5 OIB-3 2 OIC-1 1.5 OIC-2 3	OIB-2 1 OIB-3 1.5 OIC-1 1 OIC-2 2	OIB-2 0.5 OIB-3 1 OIC-2 1.5
VI			OIB-3 2 OIC-2 3	OIB-3 1.5 OIC-2 2	OIB-3 1 OIC-2 1.5
VII				OIC-2 2	OIC-2 1.5
VIII				OIC-3 3	OIC-3 2
IX				OIC-3 3	OIC-3 2
X					OIC-3 2



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SHIELD GENERATOR TYPES

Shield Generator Type	Total Mass (mt)	Control Computer Requirement	Shield Efficiency Rating	SS Requirement	Availability	Cost (MCr)
OSA-1	60	Mark I	1	0.2	LRL/60	1
OSB-2	85	Mark I	2	0.5	LRL/55	2
OSC-3	125	Mark II	3	1.0	LRL/47	8
OSD-1	100	Mark I	1	0.2	LRL/59	2
OSE-2	140	Mark I	2	0.6	LRL/54	3
OSF-3	205	Mark III	3	1.8	LRL/46	10
OSG-1	185	Mark I	1	0.4	LRL/58	3
OSH-2	255	Mark II	2	1.0	LRL/53	4
OSI-3	365	Mark III	3	2.0	LRL/45	15
OSJ-4	480	Mark IV	4	2.5	LRL/44	25

MAXIMUM SHIELD POWER Shield Types/Shield Point Ratios

Ship Class	1/1			1/2			1/3			1/4
	OSA	OSD	OSG	OSB	OSE	OSH	OSC	OSF	OSI	OSJ
I	4 5.5	6 8.5	8 11.5	7 5	8 5.5	8 5.5	8 4	8 4	12 5.5	12 4.5
II	4 5.5	5 7	6 8.5	6 4.5	7 5	8 5.5	7 3.5	7 3.5	11 5	12 4.5
III	3 4.5	4 5.5	5 7	5 3.5	6 4.5	7 5	6 3	6 3	9 4.5	10 3.5
IV	2 3	3 4.5	4 5.5	3 2	5 3.5	7 5	5 2.5	6 3	8 4	8 3
V	1 1.5	2 3	3 4.5	2 1.5	4 3	6 4.5	4 2	5 2.5	7 3.5	8 3
VI	— —	1 1.5	2 3	2 1.5	3 2	5 3.5	4 2	5 2.5	7 3.5	8 3
VII	— —	— —	1 1.5	1 0.5	2 1.5	3 2	3 1.5	4 2	6 3	7 2.5
VIII	— —	— —	— —	— —	1 0.5	2 1.5	1 0.5	3 1.5	6 3	7 2.5
IX	— —	— —	— —	— —	— —	1 0.5	— —	2 1	5 2.5	6 2
X	— —	— —	— —	— —	— —	— —	— —	1 0.5	4 2	6 2

DISRUPTOR BEAM WEAPON TYPES

Disruptor Weapon Type	Total Mass (mt)	Maximum Beam Power	Damage Modifiers +2 +1		Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement	Availability	Cost (MCr)
OD-1	60	3	—	—	8	E	0.6	0.2/0.3	RRR/72	9
OD-2	80	3	(1-5)	(6-10)	10	J	1.9	0.4/0.6	RRI/68	12
OD-3	150	4	—	(1-16)	16	R	3.0	0.8/1.5	RRI/63	23
OD-4	180	6	(1-18)	—	18	T	5.2	1.2/2.0	RRI/58	27
OD-5	210	7	(1-10)	(11-20)	20	U	5.8	1.8/3.0	RRI/54	32



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CONTROL COMPUTER SYSTEM TYPES						
Control Computer Type	System Mass (mt)	Appropriate Ship Classes	SS Requirement	Maximum WDF Allowed	Availability	Cost (MCr)
1AG	45	I-II	0.2	5	None	N/A
1BG	515	II-VI	0.8	10	None	N/A
1CG	1,400	II-X	1.3	20	None	N/A
1DG	3,350	IV-XIV	2.1	40	None	N/A
1EG	6,800	IX-XVII	2.9	80	None	N/A

CONTROL COMPUTER SUITABILITY							
Control Computer Type	Single Warp Engine Type	Tandem Warp Engine Type	Impulse Engine Type		Deflector Shield Generator Type	Maximum WDF Allowed	
1AG	GWA-1		GIA	GID-1	GSA	GSI	5
			GIB	GIE-1	GSC	GSL	
			GIC		GSF		
1BG	GWA		All But GIE-3, GIF-3		GSA	GSF	10
	GWB				GSB	GSI	
	GWC-1				GSC	GSL	
					GSD		
1CG	GWA	GWA	All But GIF-3		GSA	GSI	20
	GWB	GWB			GSB	GSJ	
	GWC				GSC	GSL	
	GWD				GSD	GSM	
	GWE				GSF		
	GWG				GSG		
1DG	All	All But GWE, GWF	All	All But GSK, GSN			40
1EG	All	All	All		All		80

WARP ENGINE TYPES							
Single Engine Use							
Warp Engine Type	Total Mass (mt)	Power Units Available	Control Computer Requirement	Stress Column (Eng/SS)	SS Requirement	Availability	Cost (MCr)
GWA-1	3,500	8	1AG	O/R	0.3	None	N/A
GWB-1	12,000	10	1BG	M/O	1.0	None	N/A
GWC-1	16,000	14	1BG	J/O	1.2	None	N/A
GWC-2	18,000	16	1CG	K/O	1.4	None	N/A
GWD-1	26,000	15	1CG	N/L	2.2	None	N/A
GWD-2	40,000	17	1CG	O/M	3.3	None	N/A
GWE-1	60,000	22	1CG	O/R	5.0	None	N/A
GWF-1	72,000	24	1DG	M/N	6.0	None	N/A
GWG-1	34,000	14	1CG	N/M	2.8	None	N/A
Tandem Engine Use							
Warp Engine Type	Total Mass (mt)	Power Units Available	Control Computer Requirement	Stress Column (Eng/SS)	SS Requirement	Availability	Cost (MCr)
GWA-1	7,000	9 ea	1CG	O/R	0.6	None	N/A
GWB-1	24,000	12 ea	1CG	O/P	2.0	None	N/A
GWC-1	32,000	16 ea	1DG	M/O	2.4	None	N/A
GWC-2	36,000	18 ea	1DG	M/P	2.8	None	N/A
GWD-1	52,000	16 ea	1DG	O/L	4.4	None	N/A
GWD-2	80,000	18 ea	1DG	O/P	6.6	None	N/A
GWE-1	120,000	22 ea	1EG	O/R	10.0	None	N/A
GWF-1	144,000	26 ea	1EG	M/O	12.0	None	N/A
GWG-1	68,000	15 ea	1DG	O/M	5.6	None	N/A



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MOVEMENT POINT RATIO TABLE: SINGLE WARP ENGINE

Movement Point Ratios

Ship Class	1/2	1/1	2/1	3/1	4/1	5/1	6/1	7/1
I	GWA-1 23 6/7	GWA-1 11.5 5/6						
II		GWA-1 11.5 5/6 GWB-1 14.5 6/7	GWA-1 5.5 5/6					
III		GWB-1 14.5 6/7	GWC-1 10 6/7	GWC-2 7.5 6/8				
IV			GWB-1 14.5 6/7 GWC-1 10 6/7	GWC-2 7.5 6/8	GWD-1 5.5 5/7			
V				GWC-1 6.5 5/6	GWC-2 5.5 5/7	GWD-1 5.5 5/7		
VI				GWC-1 6.5 5/6 GWG-1 6.5 6/7	GWC-2 5.5 5/7 GWD-2 6 6/8	GWE-1 8 5/6	GWD-1 4.5 4/6	
VII				GWG-1 6.5 6/7	GWE-1 8 5/6	GWG-1 5 6/7	GWD-1 4.5 4/6 GWD-2 5 6/7	GWD-1 3.5 3/5
VIII					GWE-1 8 5/6 GWG-1 5 6/7		GWD-2 5 6/7 GWE-1 6.5 5/6	GWD-1 3.5 3/5
IX						GWD-2 5 6/7 GWF-1 7 6/7	GWG-1 4 5/6	GWD-2 4 5/7 GWE-1 5 4/5
X							GWD-2 4 5/7 GWE-1 5 4/5	GWF-1 5.5 5/6
XI							GWD-2 4 5/7	GWF-1 5.5 5/6
XII							GWF-1 5.5 5/6	
XIII							GWF-1 5.5 5/6	GWF-1 5 4/5
XIV								GWF-1 5 4/5



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MOVEMENT POINT RATIO TABLE: TANDEM WARP ENGINES

Movement Point Ratios

Ship Class	1/1	2/1	3/1	4/1	5/1	6/1	7/1
II	GWA-1 25.5 7/8	GWA-1 13 6/7	GWA-1 9 5/6				
III		GWA-1 13 6/7	GWA-1 9 5/6				
IV	GWB-1 14.5 6/7	GWB-1 7 5/6	GWC-1 15.5 7/8	GWC-2 13 7/9			
V		GWB-1 7 5/6	GWB-1 11.5 5/6 GWC-1 15.5 7/8	GWC-1 11.5 6/7 GWC-2 13 7/9	GWC-2 10.5 6/8		
VI				GWC-1 11.5 6/7	GWC-1 9 5/6	GWC-2 10.5 6/8 8.5 5/7	
VII			GWG-1 14.5 6/8	GWD-1 11.5 6/7	GWC-1 9 5/6	GWD-1 9 5/6	GWC-2 8.5 5/7
VIII			GWG-1 14.5 6/8	GWG-1 10.5 6/7	GWD-1 9 5/6		GWC-2 8.5 5/7 GWD-1 7.5 4.5
IX			GWG-1 14.5 6/8	GWD-2 13 7/8	GWG-1 10.5 6/7	GWD-1 9 5/6	GWG-1 7 5/6 GWD-1 7.5 4/5
X				GWD-2 13 7/8	GWG-1 10.5 6/7	GWD-2 10.5 6/7	GWD-1 7.5 4/5
XI				GWG-1 10.5 6/7	GWD-2 10.5 6/7 GWE-1 12.5 4/5	GWG-1 7 5/6	GWD-1 7.5 4/5 GWD-1 6.5 3/4
XII					GWD-2 10.5 6/7 GWE-1 12.5 4/5	GWG-1 7 5/6	GWD-2 8.5 5/7 GWD-1 6.5 3/4
XIII					GWE-1 12.5 4/5 GWF-1 15 6/8	GWG-1 7 5/6	GWD-2 8.5 5/7 GWE-1 10.5 4/5
XIV						GWD-2 8.5 5/7 GWE-1 10.5 4/5	GWF-1 12.5 6/7 GWF-1 10.5 5/6
XV						GWE-1 10.5 4/5	GWE-1 9 3/4 GWF-1 10.5 5/6
XVI							GWE-1 9 3/4
XVII							GWE-1 9 3/4



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IMPULSE ENGINE TYPES							
Engine Type	Total Mass (mt)	Power Units Available	Control Computer Required	Ship Classes Powered	SS Requirement	Availability	Cost (MCr)
GIA-1	238	1	1AG	I	0.1	None	N/A
GIA-2	238	2	1AG	I-II	0.1	None	N/A
GIB-1	363	1	1AG	I-IV	0.1	None	N/A
GIB-2	363	2	1AG	IV-V	0.1	None	N/A
GIB-3	363	4	1AG	VI-VII	0.1	None	N/A
GIC-1	650	2	1AG	V-IX	0.1	None	N/A
GIC-2	650	3	1AG	V-XI	0.1	None	N/A
GIC-3	650	4	1AG	V-XI	0.1	None	N/A
GID-1	788	3	1AG	V-IX	0.1	None	N/A
GID-2	788	6	1BG	X-XIII	0.1	None	N/A
GID-3	788	8	1BG	XIII-XVII	0.1	None	N/A
GIE-1	950	4	1AG	VIII-XI	0.1	None	N/A
GIE-2	950	7	1BG	X-XIII	0.1	None	N/A
GIE-3	950	10	1CG	XIII-XVII	0.1	None	N/A
GIF-1	1,070	5	1BG	VIII-XII	0.1	None	N/A
GIF-2	1,070	10	1BG	XII-XV	0.1	None	N/A
GIF-3	1,070	15	1DG	XI-XV	0.1	None	N/A

MOVEMENT POINT RATIO TABLE: IMPULSE ENGINES												
Ship Class	Movement Point Ratios											
	1/2	1/1	2/1	3/1	4/1	5/1	6/1	7/1	8/1	9/1	10/1	11/1
I	GIA-1 3 GIA-2 5.5	GIA-1 1.5 GIB-1 1.5										
II		GIA-2 3 GIB-1 1.5	GIA-2 1.5 GIB-1 0.5	GIB-1 0.5								
III		GIB-1 1.5	GIB-1 0.5	GIB-1 0.5								
IV		GIB-1 1.5	GIB-1 0.5 GIB-2 1.5	GIB-1 0.5 GIB-2 0.5	GIB-2 0.5							
V			GIB-2 1.5 GID-1 2	GIC-1 1 GID-1 1.5	GIC-1 0.5 GIC-2 1	GID-1 1	GIC-1 0.5 GIC-3 1					
VI			GIB-3 2 GIC-1 1	GID-1 1.5	GIB-3 1.5 GIC-1 0.5	GID-1 1	GIC-1 0.5 GIC-2 1	GIC-2 1	GIC-1 0.5 GIC-3 1			
VII			GIC-1 1 GID-1 1.5		GIB-3 1.5 GIC-1 0.5	GID-1 1	GIC-1 0.5 GIC-2 1	GIC-3 1 GID-1 1	GIC-1 0.5 GIC-3 1			
VIII			GIE-1 2		GIC-1 0.5 GID-1 1	GIE-1 1.5 GIF-1 2	GIC-1 0.5 GIC-2 1	GID-1 1 GIF-1 1.5	GIC-1 0.5 GIC-2 0.5 GID-1 0.5	GIC-3 1		
IX			GIE-1 2		GIE-1 1.5 GIF-1 2		GIE-1 1 GIF-1 1.5		GIC-1 0.5 GIC-2 0.5	GID-1 0.5		
X					GID-2 2 GIE-1 1.5	GIE-2 2.5 GIF-1 2	GID-2 1.5 GIE-1 1.5	GIE-2 2 GIF-1 1.5	GIC-2 0.5 GID-2 1.5	GIE-2 1.5		
XI					GIE-1 1.5		GID-2 1.5 GIE-1 1 GIE-2 2	GIF-1 1.5 GIF-3 4	GID-2 1.5 GIE-2 1.5 GIF-1 1		GIC-2 0.5 GIF-1 1	
XII							GID-2 1.5 GIE-2 2	GIF-1 1.5 GIF-2 3 GIF-3 4	GID-2 1.5 GIE-2 1.5 GIF-1 1	GIF-2 2.5	GIE-2 1.5 GIF-1 1	
XIII							GID-2 1.5		GID-2 1.5 GIE-3 2.5	GIF-2 2.5 GIF-3 3.5	GID-2 1 GIE-2 1.5	
XIV									GIE-3 2.5		GID-2 1 GIE-2 1.5	GIF-2 3
XV									GIE-3 2.5		GIE-3 2 GIF-2 2	GIF-3 3
XVI											GIE-3 2	
XVII											GIE-3 2	



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SHIELD GENERATOR TYPES

Shield Generator Type	Total Mass (mt)	Control Computer Requirement	Shield Efficiency Rating	SS Requirement	Availability	Cost (MCr)
GSA	165	1AG	1/2	1.0	None	N/A
GSB	210	1BG	1	1.6	None	N/A
GSC	290	1AG	1/2	2.0	None	N/A
GSD	365	1BG	1	2.2	None	N/A
GSE	460	1DG	2	2.5	None	N/A
GSF	355	1AG	1/2	2.2	None	N/A
GSG	485	1CG	1	2.8	None	N/A
GSH	595	1DG	2	3.0	None	N/A
GSI	505	1AG	1/2	2.5	None	N/A
GSJ	665	1CG	1	3.0	None	N/A
GSK	890	1EG	2	3.2	None	N/A
GSL	715	1AG	1/2	2.8	None	N/A
GSM	880	1CG	1	3.4	None	N/A
GSN	1,040	1EG	2	3.6	None	N/A

MAXIMUM SHIELD POWER Shield Types/Shield Point Ratios

Ship Class	2/1					1/1					1/2			
	GSA	GSC	GSF	GSI	GSL	GSB	GSD	GSG	GSJ	GSM	GSE	GSH	GSK	GSN
I	9 26	11 31.5	13 37	13 37	13 37	14 20	15 21.5	15 21.5	15 21.5	16 23	12 8.5	12 8.5	16 11.5	16 11.5
II	7 20	9 26	12 34.5	12 34.5	13 37	13 18.5	13 18.5	15 21.5	15 21.5	15 21.5	11 8	12 8.5	16 11.5	16 11.5
III	5 14.5	7 20	10 28.5	11 31.5	11 31.5	11 15.5	11 15.5	14 20	15 21.5	15 21.5	10 7	11 8	15 10.5	16 11.5
IV	3 8.5	5 14.5	9 26	10 28.5	9 26	10 14.5	10 14.5	14 20	15 21.5	15 21.5	10 7	10 7	15 10.5	16 11.5
V	1 3	3 8.5	8 23	9 26	9 26	9 13	10 14.5	13 18.5	14 20	15 21.5	9 6.5	10 7	14 10	15 10.5
VI	— —	2 5.5	7 20	8 23	8 23	8 11.5	9 13	12 17	14 20	15 21.5	9 6.5	10 7	14 10	15 10.5
VII	— —	1 3	5 14.5	6 17	7 20	7 10	8 11.5	11 15.5	14 20	14 20	9 6.5	10 7	13 9.5	15 10.5
VIII	— —	— —	3 8.5	5 14.5	6 17	7 10	8 11.5	10 14.5	14 20	14 20	8 5.5	9 6.5	13 9.5	14 10
IX	— —	— —	1 3	3 8.5	5 14.5	6 8.5	7 10	8 11.5	13 18.5	14 20	8 5.5	9 6.5	12 8.5	14 10
X	— —	— —	— —	1 3	3 8.5	5 7	6 8.5	8 11.5	13 18.5	14 20	7 5	7 5	12 8.5	14 10
XI	— —	— —	— —	— —	2 5.5	3 4.5	5 7	6 8.5	12 17.0	14 20	6 4.5	6 4.5	12 8.5	14 10
XII	— —	— —	— —	— —	1 3	3 4.5	5 7	6 8.5	10 14.5	13 18.5	5 3.5	5 3.5	11 8	13 9.5
XIII	— —	— —	— —	— —	— —	2 3	4 5.5	5 7	8 11.5	11 15.5	3 2	5 3.5	11 8	13 9.5
XIV	— —	— —	— —	— —	— —	1 1.5	3 4.5	3 4.5	5 7	9 13	3 2	5 3.5	10 7	13 9.5
XV	— —	— —	— —	— —	— —	— —	1 1.5	3 4.5	4 5.5	6 8.5	2 1.5	4 3	10 7	12 8.5

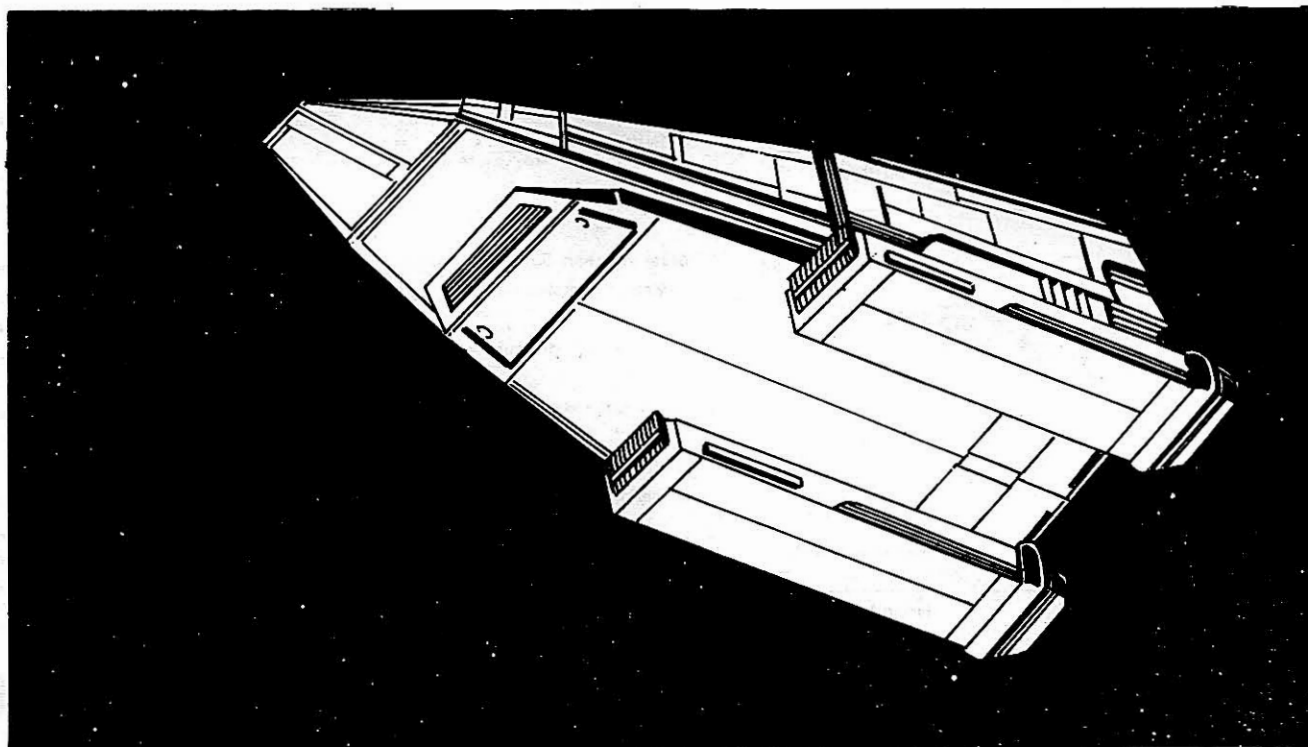


BLASTER WEAPON TYPES

Blaster Weapon Type	Total Mass (mt)	Maximum Beam Power	Damage Modifiers			Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement (single/bank)	Availability	Cost (MCr)
			+3	+2	+1						
GBL-1	280	4	—	—	—	10	B	0.7	0.4/0.7	None	N/A
GBL-2	300	4	—	—	—	10	G	1.1	0.6/1.1	None	N/A
GBL-3	340	3	(1-5)	(6-10)	(11-15)	15	K	2.3	1.0/1.9	None	N/A
GBL-4	400	5	(1-6)	(7-12)	(13-18)	18	P	2.8	1.4/2.7	None	N/A
GBL-5	480	4	(1-6)	(7-10)	(11-12)	14	O	3.4	1.8/3.5	None	N/A
GBL-6	600	7	(1-5)	(6-10)	(11-14)	14	M	4.5	2.2/4.0	None	N/A
GBL-7	640	5	(1-6)	(7-12)	(13-16)	16	R	4.4	2.4/4.6	None	N/A
GBL-8	680	6	(1-10)	(11-15)	(16-20)	20	W	6.5	2.8/5.3	None	N/A

MISSILE WEAPON TYPES

Missile Weapon Type	Total Mass (mt)	Power To Arm	Damage	Maximum Range (hex)	Firing Chart	Weapon Damage Factor	SS Requirement	Availability	Cost (MCr)
GP-1	200	2	5	8	E	0.8	0.8	None	N/A
GP-2	400	2	10	15	K	3.0	1.2	None	N/A
GP-3	520	2	8	14	O	4.1	1.0	None	N/A
GP-4	710	2	16	14	K	6.7	1.8	None	N/A



SHIP CONSTRUCTION FORM

Equipment

Class

SS

Calculations

CE

Ship Class

Maximum Ship Mass _____ mt

Computer Type

Mass

SS Requirement

_____ mt

Choose Ship Class

Choose Control Computer Type

Maximum WDF

Choose Warp Engine Type

Warp Engine Type

Number

Movement Point Ratio

Power Units

Mass

SS Requirement

Available

_____ mt

Stress Columns

Max. Safe Cruising
Speed

Emergency Speed

WER _____

Impulse Engine Type

Mass

SS Requirement

_____ mt

Power Units

Available

Total Power Units

Available

Choose Impulse Engine Type

Calculate Total Power Units Available

$$\text{Total Power Units Available} = \frac{\text{Warp Engine 1}}{\text{WER}} + \frac{\text{Warp Engine 2}}{\text{WER}} + \frac{\text{Impulse Engine}}{\text{IER}} =$$

IER _____

Choose Shield Generator Types

Calculate Power Efficiency

$$\text{Power Efficiency} = \left(\frac{\text{WER}}{\text{WER}} + \frac{\text{IER}}{\text{IER}} + \frac{\text{DPC}}{\text{DPC}} \right) \times \frac{\text{SER}}{\text{SER}} =$$

DPC _____

SER _____

Power Efficiency

Shield Generator

Mass

SS Requirement

Type

_____ mt

Maximum Shield

Shield Point

Power

Ratio

Beam #1 Type

Number

Damage Modifiers

Mass

SS Requirement

+ 3 (____ - ____)

_____ mt

+ 2 (____ - ____)

Firing Chart

Firing Arcs

+ 1 (____ - ____)

Choose Weapon Types

Calculate Total Weapon Mass

$$\#1 \text{ Beam Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} =$$

WDF, #1

$$\#2 \text{ Beam Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\text{Missile Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} =$$

Calculate Weapon Superstructure

$$\#1 \text{ Beam Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} =$$

WDF, #2

$$\#2 \text{ Beam Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\text{Missile Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} =$$

Calculate Total WDF

$$\#1 \text{ Beam WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} =$$

WDF, Missile

$$\#2 \text{ Beam WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\text{Missile WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} =$$

Total WDF

Calculate Total SS Requirement

$$\text{Warp} + \text{Impulse} + \text{Shield} + \text{Computer} + \#1 \text{ Beam} + \#2 \text{ Beam} + \text{Missile} =$$

Calculate SS Mass

$$\text{SS Mass} = \frac{\text{SS}}{\text{SS}} \times 1500 = \frac{\text{SS Mass}}{\text{SS Mass}}$$

Component Mass

Total SS Required

SS Mass

Additional Superstructure

Total Ship's Mass

Total Ship's SS

Calculate Defense Factor

$$\text{Defense Factor} = \frac{\text{Power Efficiency}}{\text{Power Efficiency}} + \left[\frac{\text{SS}}{\text{SS}} \times 1.43 \right] =$$

WDF

D

CE

$$\text{CE} = \frac{\text{D}}{\text{D}} \times \frac{\text{WDF}}{\text{WDF}} / 100 = \frac{\text{CE}}{\text{CE}}$$

SHIP CONSTRUCTION FORM

Equipment

Class

SS

Calculations

CE

Ship Class

Maximum Ship Mass _____ mt

Computer Type

Mass

SS Requirement

_____ mt

Choose Ship Class

Choose Control Computer Type

Maximum WDF

Warp Engine Type

Number _____

Movement Point Ratio _____

Power Units

Mass

SS Requirement

Available _____

_____ mt

Stress Columns

Max. Safe Cruising

Emergency Speed

Speed _____

WER

Impulse Engine Type

Mass

SS Requirement

_____ mt

Power Units

Available _____

Total Power Units

Available _____

Choose Impulse Engine Type

Calculate Total Power Units Available

$$\text{Total Power Units Available} = \frac{\text{Warp Engine 1}}{\text{Warp Engine 1}} + \frac{\text{Warp Engine 2}}{\text{Warp Engine 2}} + \frac{\text{Impulse Engine}}{\text{Impulse Engine}} =$$

IER

Shield Generator

Mass

SS Requirement

Type _____

_____ mt

Maximum Shield

Shield Point

Power _____

Ratio _____

Choose Shield Generator Types

Calculate Power Efficiency

$$\text{Power Efficiency} = \left(\frac{\text{WER}}{\text{WER}} + \frac{\text{IER}}{\text{IER}} + \frac{\text{DPC}}{\text{DPC}} \right) \times \frac{\text{SER}}{\text{SER}} =$$

DPC

SER

Power Efficiency

Beam #1 Type

Number _____

Damage Modifiers

Mass

SS Requirement

+3 (____ - ____)

_____ mt

+2 (____ - ____)

Firing Chart

Firing Arcs

+1 (____ - ____)

Choose Weapon Types

Calculate Total Weapon Mass

$$\#1 \text{ Beam Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\#2 \text{ Beam Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\text{Missile Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} =$$

WDF, #1

Beam #2 Type

Number _____

Damage Modifiers

Mass

SS Requirement

+3 (____ - ____)

_____ mt

+2 (____ - ____)

Firing Chart

Firing Arcs

+1 (____ - ____)

_____ mt

Calculate Weapon Superstructure

$$\#1 \text{ Beam Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\#2 \text{ Beam Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\text{Missile Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} =$$

WDF, #2

Missile Type

Number _____

Power To Arm

Mass

SS Requirement

Damage _____

_____ mt

Firing Chart

Firing Arcs

Calculate Total WDF

$$\#1 \text{ Beam WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\#2 \text{ Beam WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\text{Missile WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} =$$

WDF, Missile

Total WDF

Calculate Total SS Requirement

$$\text{Warp} + \text{Impulse} + \text{Shield} + \text{Computer} + \#1 \text{ Beam} + \#2 \text{ Beam} + \text{Missile} =$$

Calculate SS Mass

$$\text{SS Mass} = \frac{\text{SS}}{\text{SS}} \times 1500 = \frac{\text{SS Mass}}{\text{SS Mass}}$$

Component Mass

Total SS Required

SS Mass

Additional Superstructure

Total Ship's Mass

Total Ship's SS

Calculate Defense Factor

$$\text{Defense Factor} = \frac{\text{Power Efficiency}}{\text{Power Efficiency}} + \left[\frac{\text{SS}}{\text{SS}} \times 1.43 \right] =$$

$$\text{CE} = \frac{\text{D}}{\text{D}} \times \frac{\text{WDF}}{\text{WDF}} / 100 = \frac{\text{CE}}{\text{CE}}$$

WDF

D

CE

SHIP CONSTRUCTION FORM

Equipment

Class

SS

Calculations

CE

Ship Class

Maximum Ship Mass _____ mt

Computer Type

Mass

SS Requirement

_____ mt

Choose Ship Class

Choose Control Computer Type

Maximum WDF _____

Warp Engine Type

Number _____

Movement Point Ratio _____

Power Units

Mass

SS Requirement

Available _____

_____ mt

Stress Columns

Max. Safe Cruising

Emergency Speed

Speed _____

Choose Warp Engine Type

WER _____

Impulse Engine Type

Mass

SS Requirement

_____ mt

Power Units

Available _____

Total Power Units

Available _____

Choose Impulse Engine Type

Calculate Total Power Units Available

$$\text{Total Power Units Available} = \frac{\text{Warp Engine 1}}{\text{Warp Engine 1}} + \frac{\text{Warp Engine 2}}{\text{Warp Engine 2}} + \frac{\text{Impulse Engine}}{\text{Impulse Engine}} = \text{_____}$$

IER _____

Choose Shield Generator Types

Calculate Power Efficiency

$$\text{Power Efficiency} = \left(\frac{\text{WER}}{\text{WER}} + \frac{\text{IER}}{\text{IER}} + \frac{\text{DPC}}{\text{DPC}} \right) \times \frac{\text{SER}}{\text{SER}} = \text{_____}$$

DPC _____

SER _____

Power Efficiency _____

Shield Generator

Type _____

Mass

SS Requirement

_____ mt

Maximum Shield

Shield Point

Power _____

Ratio _____

Choose Weapon Types

Calculate Total Weapon Mass

$$\#1 \text{ Beam Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

WDF, #1 _____

$$\#2 \text{ Beam Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

$$\text{Missile Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

Calculate Weapon Superstructure

$$\#1 \text{ Beam Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

WDF, #2 _____

$$\#2 \text{ Beam Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

$$\text{Missile Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

Calculate Total WDF

$$\#1 \text{ Beam WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

WDF, Missile _____

$$\#2 \text{ Beam WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

$$\text{Missile WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

Total WDF _____

Calculate Total SS Requirement

$$\text{Warp} + \text{Impulse} + \text{Shield} + \text{Computer} + \#1 \text{ Beam} + \#2 \text{ Beam} + \text{Missile} = \text{_____}$$

Calculate SS Mass

$$\text{SS Mass} = \frac{\text{SS}}{\text{SS}} \times 1500 = \frac{\text{SS Mass}}{\text{SS Mass}}$$

Component Mass

Total SS Required

SS Mass

Additional Superstructure

Total Ship's Mass

Total Ship's SS

Calculate Defense Factor

$$\text{Defense Factor} = \frac{\text{Power Efficiency}}{\text{Power Efficiency}} + \left[\frac{\text{SS}}{\text{SS}} \times 1.43 \right] = \text{_____}$$

WDF _____

D _____

CE _____

$$\text{CE} = \frac{\text{D}}{\text{D}} \times \frac{\text{WDF}}{\text{WDF}} / 100 = \frac{\text{CE}}{\text{CE}}$$

SHIP CONSTRUCTION FORM

Equipment

Class

SS

Calculations

CE

Ship Class

Maximum Ship Mass _____ mt

Computer Type

Mass

SS Requirement

Choose Ship Class

Choose Control Computer Type

Maximum WDF

Warp Engine Type

Number

Movement Point Ratio

Power Units

Available

Mass

SS Requirement

Choose Warp Engine Type

WER

Stress Columns

Max. Safe Cruising
Speed

Emergency Speed

Choose Impulse Engine Type

Impulse Engine Type

Mass

SS Requirement

Power Units

Available

Total Power Units

Available

Calculate Total Power Units Available

$$\text{Total Power Units Available} = \frac{\text{Warp Engine 1}}{\text{Warp Engine 1}} + \frac{\text{Warp Engine 2}}{\text{Warp Engine 2}} + \frac{\text{Impulse Engine}}{\text{Impulse Engine}} =$$

IER

Shield Generator

Mass

SS Requirement

Choose Shield Generator Types

Calculate Power Efficiency

$$\text{Power Efficiency} = \left(\frac{\text{WER}}{\text{WER}} + \frac{\text{IER}}{\text{IER}} + \frac{\text{DPC}}{\text{DPC}} \right) \times \frac{\text{SER}}{\text{SER}} =$$

DPC

SER

Power Efficiency

Beam #1 Type

Number

Damage Modifiers

+ 3 (-)

+ 2 (-)

+ 1 (-)

Mass

SS Requirement

Firing Chart

Firing Arcs

Choose Weapon Types

Calculate Total Weapon Mass

$$\#1 \text{ Beam Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\#2 \text{ Beam Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\text{Missile Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} =$$

WDF, #1

Beam #2 Type

Number

Damage Modifiers

+ 3 (-)

+ 2 (-)

+ 1 (-)

Mass

SS Requirement

Firing Chart

Firing Arcs

Calculate Weapon Superstructure

$$\#1 \text{ Beam Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\#2 \text{ Beam Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\text{Missile Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} =$$

WDF, #2

Missile Type

Number

Power To Arm

Damage

Mass

SS Requirement

Firing Chart

Firing Arcs

Calculate Total WDF

$$\#1 \text{ Beam WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\#2 \text{ Beam WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} =$$

$$\text{Missile WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} =$$

WDF, Missile

Total WDF

Calculate Total SS Requirement

$$\text{Warp} + \text{Impulse} + \text{Shield} + \text{Computer} + \#1 \text{ Beam} + \#2 \text{ Beam} + \text{Missile} =$$

Calculate SS Mass

$$\text{SS Mass} = \frac{\text{SS}}{\text{SS}} \times 1500 = \frac{\text{SS Mass}}{\text{SS Mass}}$$

Component Mass

Total SS Required

SS Mass

Additional Superstructure

Total Ship's Mass

Total Ship's SS

Calculate Defense Factor

$$\text{Defense Factor} = \frac{\text{Power Efficiency}}{\text{Power Efficiency}} + \left[\frac{\text{SS}}{\text{SS}} \times 1.43 \right] =$$

WDF

D

CE

$$\text{CE} = \frac{\text{D}}{\text{D}} \times \frac{\text{WDF}}{\text{WDF}} / 100 = \frac{\text{CE}}{\text{CE}}$$

SHIP CONSTRUCTION FORM

Equipment

Class

SS

Calculations

CE

Ship Class

Maximum Ship Mass _____ mt

Computer Type

Mass

SS Requirement

_____ mt

Choose Ship Class

Choose Control Computer Type

Maximum WDF _____

Warp Engine Type

Number _____

Movement Point Ratio _____

Power Units

Mass

SS Requirement

Available _____

_____ mt

Stress Columns

Max. Safe Cruising
Speed _____

Emergency Speed _____

Choose Warp Engine Type

WER _____

Impulse Engine Type

Mass

SS Requirement

_____ mt

Power Units

Available _____

Total Power Units

Available _____

Choose Impulse Engine Type

Calculate Total Power Units Available

$$\text{Total Power Units Available} = \frac{\text{Warp Engine 1}}{\text{Warp Engine 1}} + \frac{\text{Warp Engine 2}}{\text{Warp Engine 2}} + \frac{\text{Impulse Engine}}{\text{Impulse Engine}} = \text{_____}$$

IER _____

Choose Shield Generator Types

Calculate Power Efficiency

$$\text{Power Efficiency} = \left(\frac{\text{WER}}{\text{WER}} + \frac{\text{IER}}{\text{IER}} + \frac{\text{DPC}}{\text{DPC}} \right) \times \frac{\text{SER}}{\text{SER}} = \text{_____}$$

DPC _____

SER _____

Power Efficiency _____

Shield Generator

Mass

SS Requirement

_____ mt

Type _____

Maximum Shield

Shield Point

Power _____

Ratio _____

Choose Weapon Types

Calculate Total Weapon Mass

$$\#1 \text{ Beam Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

WDF, #1 _____

$$\#2 \text{ Beam Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

$$\text{Missile Mass} = \frac{\text{Mass}}{\text{Mass}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

Calculate Weapon Superstructure

$$\#1 \text{ Beam Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

WDF, #2 _____

$$\#2 \text{ Beam Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

$$\text{Missile Superstructure} = \frac{\text{SS}}{\text{SS}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

Calculate Total WDF

$$\#1 \text{ Beam WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

WDF, Missile _____

$$\#2 \text{ Beam WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

$$\text{Missile WDF} = \frac{\text{WDF}}{\text{WDF}} \times \frac{\text{Number}}{\text{Number}} = \text{_____}$$

Total WDF _____

Calculate Total SS Requirement

$$\text{Warp} + \text{Impulse} + \text{Shield} + \text{Computer} + \#1 \text{ Beam} + \#2 \text{ Beam} + \text{Missile} = \text{_____}$$

Calculate SS Mass

$$\text{SS Mass} = \frac{\text{SS}}{\text{SS}} \times 1500 = \frac{\text{SS Mass}}{\text{SS Mass}}$$

Component Mass

Total SS Required

SS Mass

Additional Superstructure

Total Ship's Mass

Total Ship's SS

Calculate Defense Factor

$$\text{Defense Factor} = \frac{\text{Power Efficiency}}{\text{Power Efficiency}} + \left[\frac{\text{SS}}{\text{SS}} \times 1.43 \right] = \text{_____}$$

WDF _____

D _____

CE _____

$$\text{CE} = \frac{\text{D}}{\text{D}} \times \frac{\text{WDF}}{\text{WDF}} / 100 = \frac{\text{CE}}{\text{CE}}$$

Jack Photon's 4.0TH FANTAVERSARY REVISION

FOR USE WITH
FASA
GAME SYSTEM

STAR 40TH TREK

1983 - 2023
THE ROLE PLAYING GAME

FASA Corporation with Fantasilimations Associates
1983 ~ 2023



21st Century HOUSE RULES for 23rd Century Gaming

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and: Book 7, Memory Bank Epsilon

With thanks for their now-historic and successful efforts.

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Jack Photon's 4.0th Fantasy RPG Revision

FFRPG
BOOK 07

STAR TREK: THE ROLE PLAYING GAME 4.0TH

BOOK 7: MEMORY BANK EPSILON



Jack Photon's 4.0th Fantasy RPG Revision

FFRPG
BOOK 07

Jack Photon's 4.0th Fantaversary Revision

The three major Ship Recognition Manuals, UFP, KE, RSE, plus
1st Edition 1701 / D-7 Manual and Tholian Spinner plus
Dragon Magazine's K'Zinti Patrol Craft plus
2nd Edition Ship Construction Manual.

21st Century
**HOUSE
RULES**
for 23rd Century Gaming

**"To explore strange new worlds.
To seek out new life and new civilizations.
To boldly go where none a'gone a'fore."**

1983

FAS-RPG

Jack Photon's 4.0th Fantaversary Revision

2023

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STAR 4TH TREK™

1983 - 2023

FOR USE WITH
FASA
GAME SYSTEM

A GAME FOR ROLEPLAYING
ADVENTURES IN THE ORIGINAL SERIES AS WAS BACK WHEN



250707.07

Book 7

MEMORY BANK EPSILON

**Advanced
Ship Recognition Manuals
and Construction Rules**